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TRAVELS

TO THE

WESTWARD

OF THE

ALLEGANY MOUNTAINS,

IN THE

STATES OF THE OHIO, KENTUCKY, AND TENNESSEE,

AND

RETURN TO CHARLESTOWN, THROUGH THE UPPER CAROLINAS;

CONTAINING DETAILS ON THE PRESENT STATE OF AGRICULTURE
AND THE NATURAL PRODUCTIONS OF THESE COUNTRIES; AS
WELL AS INFORMATION RELATIVE TO THE COMMERCIAL
CONNECTIONS OF THESE STATES WITH THOSE
SITUATED TO THE EASTWARD OF THE
MOUNTAINS AND WITH
LOWER LOUISIANA.

*UNDERTAKEN IN THE YEAR X, 1802, UNDER THE AUSPICES
OF HIS EXCELLENCY M. CHAPTAL, MINISTER
OF THE INTERIOR.*

WITH A VERY CORRECT MAP OF THE STATES IN THE CENTRE, WEST AND
SOUTH OF THE UNITED STATES.

BY F. A. MICHAUX, M. D.

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SOCIETY OF AGRICULTURE OF THE DEPARTMENT OF THE SEINE AND OISE.

FAITHFULLY TRANSLATED FROM THE ORIGINAL FRENCH,
BY B. LAMBERT.

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ADVERTISEMENT.

THERE are many books of travels in the United States, and numerous observations on this country are also to be met with in other works, so that the body of information which the public are already in possession of, seems, at the first glance, to be sufficient, and to render a new relation useless; but most of these works relate exclusively to the Atlantic States; and, if some of them treat of those situated to the westward of the Allegany Mountains, it is only superficially, or in an extremely vague manner. Nevertheless, the opinions

I had formed of these countries, induced me to consider them as much more interesting than they were generally imagined to be, and I determined upon visiting them whenever I should find leisure for it. This opportunity, so much desired, occurred in the month of June 1802, when I was at Philadelphia. I had upwards of six hundred leagues to travel, and I could not, without injury to the business which had brought me a second time into the United States, devote a sufficient space of time to collecting all the facts relating to the object I had in view; it would have required at least a year to accomplish it well, and to obtain more accurate ideas, by personally observing the successive developments of vegetation. This space of time would also have enabled me to procure more extensive information on the commercial relations which so essentially connect the western country with the Atlantic States and Lower Louisiana; and on which, I believe, nothing has yet been published. My work, therefore, cannot be considered as complete; but I flatter myself that, on the appearance which these countries offer; on the degree of prosperity to which they have lately arrived, and on that which they are capable of acquiring hereafter; these details will be found sufficient to change the opinions which have been hitherto formed of them. I may also add that, when I undertook the journey, I had not any intention of publishing my observations, and that consequently, I omitted collecting a multitude of facts, which, however indifferent they may appear to the traveller, frequently afford much interest to the reader of a journey: of this I was very sensible while writing this short narration. On the other hand, I have entered into circumstances which by many people may perhaps be considered as unimportant; but which, in my opinion, will be found very useful to all who may travel in these countries hereafter; for they convey that information which is first sought for by those who intend to visit a country, and which is very seldom afforded by the works relating to it.

The map added to this journey has been laid down from those which appeared to me to be the best, according to the knowledge I have attained of the different parts of the United States in which I have travelled. I shall, however, observe, that all the maps which exist, even those recently published in America, are very imperfect in every thing relating to the western country: but not having had time to make observations sufficiently correct, I have not thought it right to differ from them, except in rectifying the course of the river Cum-

Friaud, which was evidently carried too far to the east. On the road from Lexington to Nashville I have indicated exactly the spot at which the barrens (*meadows*) of Kentucky commence, and also that of their termination, although their extent does not entirely agree with their relative position with the rivers, by which they are crossed. The line which begins at Nashville, and finishes at the Natches, shows very nearly the road which is now making. It was traced for me by persons who have travelled it several times. That leading from the Natches to New Orleans is rather ideal than true, and is traced to show the communications by which all these countries are connected: I only know generally that the road runs very nearly parallel with the river.

I have, besides, indicated in the most accurate manner possible, by a punctuated line, the boundaries which, in the southern states, separate the high country from the maritime part; but I have also been careful, in the course of the work, to mention the distance from the sea at which this division takes place.

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TRAVELS

TO THE WESTWARD OF

THE ALLEGANY MOUNTAINS.

CHAP. I.

Departure from Bourdeaux.—Arrival at Charlestown.—Remarks on the Yellow Fever.—Short Description of Charlestown.—Observations on some Trees of the old Continent, acclimated in a Garden near that City.

CHARLESTOWN, in South Carolina, being the place of my first destination, I repaired to Bourdeaux, as being one of the ports of France possessed of the most extensive commercial intercourse with the southern parts of the United States, and at which there are constantly vessels from the different points of North America. On the 7th Fructidor, in the year IX. I embarked on board the John and Francis, commanded by the captain with whom I had returned to Europe several years before. Fourteen days after our departure we were overtaken by a calm, within sight of the Azores. The islands of St. George and Graciosa were the nearest to us, and we could easily distinguish some of the houses, which appeared to be built of stones and lime; the sudden declivity of the land was divided by hedges, probably marking the boundaries of different estates. The greater part of these islands are covered with lofty hills, lying in different directions, over which the summit of the Peak, of a pyramidal form, appearing as if hollowed at its top, rises majestically above the clouds, which were then glowing with the rays of the setting sun. A light breeze prevented our enjoying the prospect of these islands long; and on the 18th

Brumaire following, October 9th, 1801, we arrived at the entrance of Charlestown roads, in company with two other vessels, one of which had quitted Bourdeaux eighteen days, and the other a month, before us.

The pleasure we felt at reaching the land was soon damped. The pilot informed us that the yellow fever had made dreadful ravages in Charlestown, and that it still carried off great numbers of people: this intelligence terrified the passengers, who were fourteen in number, and, of whom, the greater part had relations or friends in this city. Each one was apprehensive of hearing unpleasant tidings on landing. We had no sooner cast anchor, than those who had not before lived in hot climates, were conducted by their friends to Sullivan's Island. This island is seven miles from Charlestown. Its dry and arid soil is almost destitute of vegetation; but, being directly exposed to the sea breeze, the air is cool and agreeable. Some years ago, on the bilious and inflammatory disorder, generally known by the name of the *yellow fever*, making its appearance regularly every summer at Charlestown, a great number of the inhabitants, and of the planters who took shelter in the city to escape the intermittent fevers which attack seven-tenths of the inhabitants of the country, built houses in this island, where they reside from the first of July till the commencement of the frost, which generally takes place about the fifteenth of November. There are some boarding-houses kept here for the reception of those who have not dwellings of their own. It has been observed that strangers, newly arrived from Europe, or from the northern states of America, and who come immediately to reside in this island, are exempt from the yellow fever.

These considerations, however powerful they might be, could not induce me to pass an indeterminate time in a retreat so dull and fatiguing. I therefore rejected the advice of my friends, and remained in the city: but I had nearly fallen a victim to my obstinacy, being, a few days after, attacked with the first symptoms of this cruel malady, from which I did not escape until after a month's sufferings.

The intensity of the yellow fever varies every year, and observation has not yet succeeded in ascertaining the characteristic signs by which a judgment can be formed as to its greater or less malignity in the summer. The inhabitants of the city are not so subject to it as strangers, eight-tenths of whom died in the year of my arrival; and when the former are attacked, it is always in a much smaller proportion.

It has been observed that during the months of July, August, September, and October, in which this disease is commonly prevalent, those persons who quit Charlestown, only for a few days, are, on their return to the city, much more susceptible of catching it, than those who have remained. The inhabitants of Upper Carolina, distant two or three hundred miles, who come here during this season, are as liable to it as foreigners; and those of the surrounding country are not always exempt from it. Whence it results, that for one third of the year, nearly all the intercourse between the country and city is stopped, whither people only come through necessity, and are cautious not to sleep there. The supplies of provisions are, at that time, brought by the negroes of the country, who are not subject to the yellow fever. When, on my return from the journey which I had taken into the countries to the westward, I proceeded to Charlestown in the month of October, 1802, I did not, in the most frequented roads, and for a distance of three hundred miles, meet a single passenger going to or coming from that city; and, at the houses where I stopped, they did not conceive it possible that any one could have business of such importance as to go thither during that season.

From the first of November to the first of May, the country exhibits a very different appearance: every thing is restored to a new life; commerce is reanimated, the communications which had been stopped are re-opened; the roads are covered with carriages, bringing the products of the exterior in all direction; a multitude of coaches and chaises pass rapidly along, and keep up a continual intercourse between the city and the plantations in the vicinity, where the owners pass a part of this season; in a word, commercial activity makes Charlestown as lively as it was dull and melancholy in the summer.

It is generally believed at Charlestown, that the yellow fever which prevails there, as well as at Savannah, every summer, is analogous to that which exists in the colonies, and that it is not contagious: but this opinion is not universally adopted in the cities to the north. It is a fact, that when this malady makes its appearance at New York and Philadelphia, the inhabitants are as liable to catch it as strangers, and they quit their habitations as soon as they learn that their neighbours are attacked by it. But they have one very great advantage which the people of Charlestown do not enjoy, which is, that the country surrounding Philadelphia and New York is agreeable and healthy, and that at two or three miles distance they are in perfect security, even when the disease causes the greatest ravages in these two cities.

I have introduced this digression to warn those who may have occasion to go to the southern part of the United States, that there is considerable danger in arriving there in the months of July, August, September, and October. I believed, with many others, that the use of the various means calculated to prevent the effervescence of the blood, would infallibly guard against this malady; but experience shows, every year, that those who have followed the best regulated life, are not wholly exempt from the fate of such as do not confine themselves to any particular regimen.

Charlestown is situated at the confluenc of the rivers Ashley and Cooper. Th space of land which it occupies is about mile. The two rivers might be seen fro the middle of the principal street, were it not that a public edifice, built on the banks of the Cooper, intercepts the sight. The most populous and commercial part of the city stands on the Ashley. Some parts of the quay project far into the river, for merchant vessels to receive their cargoes with greater ease. These quays are made of the trunks of the cabbage-palm, fixed together, and arranged in squares, one above another. Experience has shown that the stems of these palms, though of a very spongy nature, are preserved uninjured in water for a great number of years; for which reason the preference, over every other tree in the country, is given to them, for constructions of this description. The streets of Charlestown are broad, but they are not paved, and the feet sink into the sand whenever the passenger is obliged to quit the bricked footways, which are before the houses. The rapid passage of coaches and chaises, which are in a much larger proportion here than in any other city in America, crushes this loose sand, and makes it so fine, that the least wind fills the shops with it, and causes it to be very disagreeable to foot-passengers. There are pumps, at short distances, to supply the inhabitants with water, which is so brackish that it is really astonishing how a stranger can accustom himself to it. Seven-tenths of the city are built of wood; the remainder with bricks. According to the last census, made in 1803, the population, including strangers, amounted to 10,690 whites, and 9,050 slaves.

Foreigners arriving at Charlestown, as well as at the other cities of the United States, will find no hotels or furnished apartments for hire, to lodge in; no ordinaries, or eating-houses to live at; instead of these, there are boarding-houses, which supply lodging, food, and lights. In Carolina, the price of these accommodations is from twelve to twenty piastres per week. This exorbitant price bears no proportion to that of provisions. Beef seldom costs more than six pence per pound. Vegetables are dearer here than meat. In addition to the articles of consumption which are furnished by the country, the port of Charlestown is constantly filled with small vessels from Boston, Newport, New York, and Philadelphia, and all the smaller intermediate ports, loaded with flour, salt provisions, potatoes, onions, carrots, beet-roots, apples, oats, maize, and hay. Planks and timber also form a considerable article of importation, and although these products are brought three or four hundred leagues, they are cheaper, and of a better quality, than those of the country.

In winter, the markets of Charlestown are supplied with live sea fish, brought from the northern part of the United States in boats of such a construction, that the water of the sea is continually renewed in them. These vessels take back in return, rice and cotton; the greatest part of which is re-exported to Europe, the freight being always lower in the northern states than in those to the south. The raw cotton which is retained in the northern states is more than sufficient for the supply of their

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Europe is ten inches in diameter. I gave several of them away before my return to France; this tree being already in great request for the magnificence of its flowers. The agricultural society of Carolina are now in possession of this garden, which they propose to continue, and to cultivate in it those useful vegetables of the old continent, which, from the resemblance of climate, promises a chance of success. I employed the remainder of the autumn in making collections of seeds, which I sent to Europe, and the winter in visiting the different parts of Lower Carolina; and in reconnoitering the spots, where, in the following year, I might obtain a more abundant collection, and procure the species I wanted, and had been unable to get during the autumn.

On this occasion I shall observe, that, in North America, and perhaps also in Europe, there are plants which inhabit only certain determinate places; whence it happens that a botanist, in despite of his zeal and activity, may not meet with them for several years; while another, led by a fortunate chance, shall find them in his first excursion. I shall add, for the information of those who may be inclined to traverse the southern part of the United States with a botanical view, that the flowering season commences about the first of February; that it is necessary to arrive in the month of August to collect the seeds of herbaceous plants; and, by the first of October, for obtaining those of forest trees.

CHAP. II.

Departure from Charlestown for New York. Short Description of that City.—Botanical Excursions into New Jersey.—Remarks on the Quercitron, or Black, Oak and the Walnut Trees of the Country.—Departure from New York for Philadelphia.—Residence.

IN the spring of the year X. I left Charlestown for New York, where I arrived after a passage of ten days. The commerce between the northern and southern states is so brisk, that opportunities are constantly to be met with at Charlestown of going to any northern port that may be wished. Several vessels have apartments, arranged with taste, and provided with conveniences for receiving passengers, who go, annually, to the northern parts of the United States during the unhealthy season, and return to Charlestown in the course of November. The price of the passage is from forty to fifty piastres; its duration varies according to the season, and generally does not exceed ten days; but is sometimes prolonged by the violent gusts of wind met with in doubling cape Hatras.

New York, situated at the conflux of the east and north rivers, is much nearer the sea than Philadelphia. Its secure harbour, of easy access at all seasons, gives it a great superiority over that city, and unceasingly add, to its extent, its riches, and its population, which is estimated at upwards of fifty thousand souls, among whom a very small number of negroes are reckoned. Living is not so expensive here as at Charlestown, the price of board being from eight to twelve piastres a week.

During my residence at New York, I had frequent opportunities of seeing Doctor Hosack, professor of botany, who enjoys a distinguished reputation. He was at that time employed in the establishment of a botanical garden, at which he purposed giving regular lectures. This garden is some miles from the city: its situation is well chosen, and there are suitable spots for the plants most wanted by individuals. M. Hosack is physician to the hospital and the prison, and, in this quality, he permitted me to accompany him in one of his visits, which gave me an opportunity of seeing these two establishments. The hospital is well situated; the buildings are extensive, the wards large and well aired; but the beds appeared to me to be bad; they consist of a very low bedstead with a frame of planks four inches high; a mattress, or rather a paillasse, filled with oat straw, and very thin; sheets of coarse brown linen, and a blanket. The prison is remarkable for the good order, the system, and the neatness which prevail in it, and more especially for the activity with which the prisoners follow the labours imposed on them. Some are employed in a manufacture of shoes, and others in making cut nails. These nails, which are formed by a machine, have no point, and cannot be used in every sort of work, like those made in the common way. Many people, however, give them the preference for fastening the shingles with which almost every house in the United States is covered. It is said that these nails are not liable to the inconvenience of coming out of their holes, as happens to the others; for, on the roofs of old houses, a very great number of the nails appear as though they had not been driven more than half or three-fourths of their length into the wood.

During my residence at New York, I made some botanical excursions into New Jersey, along the north river. This part of New Jersey is very uneven, the land is stony, and, judging from the seeds which I met with in the cleared spots, bad. Large rocks of a calcareous nature, and appearing as if decayed, are level with the earth on almost all the hills. Nevertheless there are various trees to be seen, among others a variety of the red oak, the acorn of which is swelled in the middle; the white oak, *Quercus alba*; and, among the different species or varieties of walnut, the *Juglans tomentosa*, or mocker-nut, and the *Juglans minima*, or pig-nut. In low damp places, where the water stagnates nearly all the year, are found the *Juglans hickery*, or shell barked hickery; the *Quercus prinus aquatica*, which belongs to the series of *prinus*, and is not mentioned in the *Histoire des Chênes*.* The valleys are stocked with the ash, the plane, the *Cornus florida*, the poplar, and particularly with the *Quercus tinctoria*, or Quercitron, known in the country by the name of the black oak.

The quercitron oak is very common in all the northern states. It is also found to the westward of the Allegany mountains, but it is less plentiful in the lower parts of the two Carolinas, and in Georgia. The leaves of the lower branches take a different form from those of the upper ones; the latter are indented to a greater depth. The figure given in the Histoire des Chênes represents only the leaves of the lower branches, and the forms which they have in young trees. Among the great number of species and varieties of oaks, of which the forms of the leaves differ, according to their age, which causes them to be frequently confounded with each other, there are characteristic signs by which the quercitron oak can always be distinguished. In all the other species, the foot-stalk, the nerves, and the leaves themselves are of a paler or deeper green, and towards autumn, this colour becomes darker, and passes to a more or less distinct red; on the contrary, the foot stalk, the nerves, and the leaves of the quercitron are yellowish from their expanding, and as if they were pulverulent, and the yellow colour becomes deeper as the winter approaches. This remark is sufficient to prevent mistakes, but there is also another more certain, and by which this species may be known in the winter, when it has lost its leaves: this is the bitter taste of its bark, and the yellow colour it communicates to the saliva, when it is chewed. I think, however, that I have found the same property in the bark of the *Quercus cinerea*, as I observed to Doctor Bancroft, who was at Charlestown in the winter of 1802. At any rate, these two species of oak cannot be mistaken for each other; for the latter grows only in the driest and most arid places in the southern states; it rarely exceeds four inches in diameter, and eighteen feet in height, and its leaves are lanceolate; while the quercitron rises to the height of twenty-four feet, and its leaves have several very long lobes.

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* Histoire des Chênes de l'Amérique Septentrionale, par A. Michaux. 1 vol. *in fol. fig.* 1801. chez Levrault, frères.

Among the acorns which I sent to France from the northern states of America, and also among those which I brought on my return in the year XI. are those of the quercitron oak, which have grown very abundantly in the nursery at Trianon. Citizen Cels has also more than a hundred young plants of it in his garden.

The species and varieties of walnuts natural to the American states, are also very numerous, and might be the subject of a useful and interesting monograph; but this work will not be very accurate, if the differential characters of the trees are not studied in the country itself, and that for several years. I have seen some of these trees, which from the flowers and the leaves, should have belonged to the same species, but which, from the husk and the nuts, appeared to be different. I have seen others, on the contrary, whose flowers and leaves were absolutely different, but whose fruits were perfectly analogous. It is true that there are some whose flowers and fruits together offer well defined characters, but these are the smallest number. This multiplicity of varieties and species of walnuts is not confined to the United States: it may be observed in every part of North America from the most northerly extremity of the United States to the Mississipi, that is to say, over an extent of more than eight hundred leagues from north to south, and five hundred from east to west. I have brought over the fresh nuts of six different species, which have come up well, and appear not to have been hitherto described.

I quitted New York on the 8th of June 1802, for Philadelphia. The distance is one hundred miles. The stages perform this journey, some in one day, and some in a day and a half. The price is five piastres each person. At the taverns where the stages stop, one piastre is paid for dinner, half a one for supper or breakfast, and the same for a bed. The whole of the interval which separates these two cities is cultivated, and the farms are contiguous to each other. Nine miles from New York is Newark, a very pretty little town, in New Jersey. The fields with which it is surrounded, are planted with apple trees: the cider made here is reckoned the best in the United Sates, but I think it greatly inferior to what is drank at Saint Loo, Coutances, or Bayeux. Among the other small towns met with on this road is Trenton. Its situation on the Delaware, and the beautiful country around it must render it a delightful retreat.

Philadelphia is situated on the Delaware, one hundred and twenty miles from the sea. It is at present the largest, the handsomest, and the most populous city of the United States. There is not perhaps one on the old continent built on so regular a plan. Its streets, which intersect each other at right angles, are from forty-five to fifty feet wide, except that in the middle of the city which is twice that breadth. In it is built the market which is worthy of notice for its extent and the extreme neatness preserved in it. It is in the centre of the city, and occupies about one-third of its length. The streets are paved, and are provided with broad bricked footways. Pumps placed on each side of them at fifty toises (about one hundred yards) from each other, supply an abundance of water. Each of them has a lamp on its top. Several of the streets have Italian poplars of a very handsome appearance planted before the houses.

The population of Philadelphia is constantly increasing: in 1749, there were 11,000 inhabitants; in 1785, 40,000; and, at present, the number is estimated at manufactures, which are but few; the surplus is disposed of in the country, where the women fabricate coarse cotton stuffs for the use of the family.

Wood is very dear at Charlestown; a cord costs forty or fifty livres (about forty shillings): and this, notwithstanding the forests, to which no limits can be assigned, begin at six miles, or even a smaller distance from the city, and the conveyance is facilitated by the two rivers, at the confluence of which it is situated. This price is occasioned by that of labour: and many individuals burn pit-coal, which is brought from England, for cheapness.

As soon as I had recovered, I quitted Charlestown, and went to live at a small house, ten miles from the city, where my father had formed a botanic garden. Here he had collected and cultivated with great care the plants which he found in the long and fatiguing journeys which his ardent love of science made him take, almost every year, through the different countries of America. Always animated with the desire of serving the country in which he resided, he judged that the climate of South Carolina might be favourable to the culture of several useful plants of the old continent, and pointed them out, in a Memoir which he read to the agricultural society at Charlestown. Some successful trials confirmed him in his opinion; but his return to Europe prevented him from pursuing his first intentions. At my arrival in Carolina, I found, in this garden, a beautiful collection of trees and plants of the country, which had survived an almost total neglect, for four years. I also found a great number of trees from the old continent, which my father had planted there, some of which gave marks of the most vigorous vegetation. I principally noticed two *Ginkgo biloba*, which had been planted only seven years, and had already attained an elevation of thirty feet; several *Sterculia plantanifolia*, which had yielded seeds for five or six years; finally, more than a hundred and fifty *mimosa illibrissin*, of which the stem of the first one brought from

CHAP. III.

Departure from Philadelphia for the Western Country.—Communications by Land in the United States.—Arrival at Lancaster.—Description of this City and its Environs.—Departure.——Columbia.——Log-Houses.—Passage of the Susquehannah.—York.—Dover.—Carlisle.—Arrival at Shippensburgh.—Remarks on the State of Agriculture along this Route.

THE states of Kentucky, Tennessee, and the Ohio comprise that vast extent of country known in America by the name of the Western Country. Almost all the Europeans who have published observations on the United States, have contented themselves with saying, from common report, that these countries are very fertile; but have not entered into any details. It is true, that to reach these new establishments, it is necessary to traverse a considerable space of uninhabited country; and that these journeys are long and fatiguing, without offering any thing very interesting to travellers, who confine themselves to describing the manners of the people inhabiting towns or populous places; but since natural history, and particularly vegetable productions, as well as the state of agriculture, were the principal objects of my researches, I was obliged to remove from the places most known, and frequent those which were the least so: I therefore resolved to undertake a journey to these distant countries. I had nearly two thousand miles to go over before my return to Charlestown, where I was obliged to be by the first of October. My progress might also be necessarily retarded by a thousand obstacles, dependent on localities, and which it was impossible to foresee or prevent. These considerations did not stop me, and I resolved to leave Philadelphia on the 27th of June, 1802. I had no inducement to proceed slowly, with a view to collect such observations as had been already confirmed by the recitals of those travellers who had taken this journey before me, which determined me to seek the most expeditious conveyance to Pittsburgh, at the head of the Ohio, and I took the stage * from Philadelphia to Shippensburgh, through Lancaster, York, and Carlisle. Shippensburgh is a hundred and forty miles from Philadelphia, and is the most distant place, on this road, to which the public conveyances travel.

It is sixty-six miles from Philadelphia to Lancaster, where I arrived in the afternoon of the same day. The turnpike road is

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* Until the year 1802, the public stages from Philadelphia did not go farther to the southward than Petersburgh, in Virginia: but in the month of March of this year, a new line of correspondence was established between that place and Charlestown. Fifteen days are required for the journey; the distance is six hundred and fifty miles, and the price fifty piastres. There are also stages between Philadelphia, New York, and Boston; as well as between Charlestown and Savannah in Georgia; so that from Boston to Savannah, a distance of twelve hundred miles, there is the accommodation of public vehicles.

kept in good order by means of the tolls, which are collected in different places upon it. Along this interval, the plantations are nearly all to be seen from each other. Every estate has an inclosure. Through the whole extent of the United States the cultivated lands are all inclosed, to protect them from the cattle which every body leaves, for the greatest part of the year, in the woods, which, in this respect, are in common. Near towns, these inclosures are formed of stakes driven into the ground at a distance of ten or twelve feet, with five holes, eight or nine inches from each other, into which are fixed pieces of wood, in the rough, four or five inches in diameter, and of the necessary length. This method of inclosing is most suitable and economical, because it makes a great saving of wood, which is extremely dear in the vicinity of the large towns in the north: but in the interior of the country and in the southern states, the inclosures are made with pieces of wood of an equal length, placed above each other in a zigzag form, and supported on their ends, which cross each other, and are interwoven: their height is about seven feet. In the lower part of the Carolinas, they are made of pine-wood; but in the other parts of the country, and through all the north, they are of oak or chestnut: they last for twenty-five years, when they are attended to.

The country through which we passed in our journey to Lancaster is very fertile. The fields were covered with wheat, rye, and oats, the fine vegetation of which showed that the land is better than that between New York and Philadelphia. The taverns on the road are very numerous, and the German language is spoken in almost all of them. My fellow travellers, always thirsty, stopped the stage at every tavern to drink some glasses of grog. This beverage, which is in general use in the United States, is a mixture of brandy and water, or rum and water, the proportions of which depend solely on the taste of each person.

Lancaster is situated in a fertile and well cultivated plain. This town is built on a regular plan. The houses, which are two stories high, are of bricks. The two principal streets, like those of Philadelphia, are provided with pumps and footways. The population is from four to five thousand inhabitants, nearly all of German extraction, and of different religions. Each has its particular church: the Roman Catholics are the least numerous. Most of the inhabitants are gun-smiths, hatters, sadlers, and coopers; there are also some tanners. The gun-smiths of Lancaster have long been famous for the fabrication of rifles, the only kind of fire-arms made use of by the inhabitants of the interior, as well as by the Indian nations adjoining to the United States.

At Lancaster, I formed an acquaintance with Mr. Muhlenberg, a Lutheran minister, who has followed the study of botany for twenty years. He showed me the manuscript of a *Flora Lancastriensis*. The number of described species already amounts to upwards of twelve hundred, one hundred and twenty-five of which are graminaceous: it is to this class that he pays most attention. Mr. Muhlenberg is very communicative, and signified to me how greatly he should be pleased to have an intercourse with the French botanists: he corresponds regularly with Messrs. Wildenow and Smith. At Lancaster I met with Mr. William Hamilton, of whom I had occasion to speak when describing his magnificent garden near Philadelphia. This amateur was intimately connected with my father, and I cannot forget the marks of good will I received from him, and Mr. Muhlenberg, as well as the interest they both showed for the success of the long journey I had undertaken.

On the 27th of June I quitted Lancaster for Shippensburgh. We were only four in the stage, which holds twelve people. Columbia, situated on the Susquehannah, is the first town we came to. It is composed of about fifty detached houses, almost all constructed of planks: here the turnpike road terminates.

It may not be useless to observe here, that in the United States, the name of town is frequently applied to an assemblage of seven or eight houses, and that the manner of constructing them is not every where the same. At Philadelphia the houses are of brick; in the other towns, and in their environs, the half, and very often the whole of them, are of planks: but seventy or eighty miles from the sea, in the central and southern states, and still more particularly in those situated to the west of the Allegany mountains, seven-tenths of the inhabitants live in *log-houses.* These houses are made of the trunks of trees, from twenty to thirty feet long, and four or five inches in diameter, placed one above another, and supported by letting their ends into each other. The roof is formed of pieces of a similar length with those which form the body of the house, but lighter, and brought gradually nearer together from each side; they are intended for the support of the shingles, which are fastened to them by means of small splinters of wood. Two doors, which frequently supply the place of windows, are formed by sawing away a part of the trunks which form the body of the house. The chimney, which is always at one of the ends, is also made of trunks of trees of a suitable length. The back, which is of clay, six inches in thickness, separates the fire from the wooden wall. Notwithstanding this slight precaution, fires are very uncommon in this country. The spaces between these trunks of trees are filled with clay, but always with so little care, that they are open to the weather on every side: these houses are consequently very cold in winter, notwithstanding the large quantity of wood which they burn. The doors are hung on wooden hinges, and the greater part of them have no locks. At night, they are only pushed to, or shut with a log of wood. Four or five days are enough for two men to complete one of these houses, in which there are neither nails nor iron of any sort. Two large beds receive all the family. In summer the children frequently sleep on the ground, wrapped in a blanket; the floor is raised one or two feet above the surface of the soil, and planked. They use feather-beds and feathers, but not mattresses. Sheep being very scarce, the wool is dear, and is kept to make stockings. The clothing of the family is hung on pegs round the room, or over a long pole.

At Columbia, the Susquehannah is a quarter of a mile broad. We passed it in a ferry boat. The water was then so low that we could easily perceive the bottom. Very high hills form the banks of this river, the middle of which is covered with small woody islands, which appear to divide it into several branches. Some of them are not more than five or six acres in extent, yet are as high as the neighbouring hills. Their irregularity, and the singular forms which they present, render this situation picturesque, and really worthy of notice, particularly at this season of the year when the trees were in full vegetation.

A mile from the Susquehannah, I noticed the *Annona triloba*, or papaw, the fruit of which is tolerably good, though flat. When at maturity, it is the size of a hen's egg. According to the testimony of Mr. Muhlenberg, this shrub grows in the environs of Philadelphia.

Twelve miles from Columbia is York, a small well built town, the houses of which, mostly of brick, are contiguous. The inhabitants are computed at from fifteen to eighteen hundred; the greater part are of German origin, and do not speak English. Six miles from York, we passed through Dover, composed of about thirty log-houses, arranged on the two sides of the road, and the stage stopped at Macolegan's, who keeps a wretched tavern fifteen miles from York. We only travelled thirty-eight miles this day.

The taverns are very numerous in the United States, and particularly in the small towns; but except in the large towns and their environs they are almost every where very bad. Nevertheless, rum, brandy, and whiskey * are always to be had. These articles of provisions are considered as being of the first necessity, and the profits of those who keep taverns arise principally from the liquors, of which there is a very great consumption. Travellers generally stop till the regular hours of the family to take refreshment. At breakfast, they serve up bad tea, worse coffee, and small slices of ham fried, to which are sometimes added eggs and a broiled fowl. At dinner, there is a piece of salt beef and roast fowls, with rum and water for drink. At night, coffee, tea, and ham. There are always several beds in the room in which they sleep: white sheets are seldom met with; happy the traveller who arrives on the day they are changed! But these are things with which an American who travels never troubles himself.

On the 28th of June, we arrived early at Carlisle, situated at fifty-four miles from

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* In America, whiskey is the name given to brandy made of rye.

70,000. The few negroes found here are free, and are mostly employed as domestics. Provisions are a little cheaper at Philadelphia than at New York; the charge for boarding is, consequently, only from six to ten piastres a week. In Philadelphia we do not meet with any beggars, or any person bearing the stamp of misery in his countenance; this distressing sight, so common in the cities of Europe, is unknown in America: the love of, and the necessity for work, the scarcity of hands, the high price of labour, an active commerce, just ideas, are so many causes which oppose the introduction of mendicity, either in the towns or in the country.

During my residence in Philadelphia I had an opportunity of seeing the Rev. Doctor Collin, minister of the Swedish church, and president of the Philosophical Society; Mr. John Vaughan, corresponding secretary; and Messrs. Piles, and John and W. Bortram. These gentlemen had been intimately acquainted with my father, and I experienced from them every mark of esteem and good-will. Mr. Piles has an elegant cabinet of natural history. The legislature of Pennsylvania have given him a place for its reception, which is the only encouragement he has had from them. He is constantly employed in enriching it, and in increasing the number of his correspondents, as well in Europe, as in the distant parts of America; but, with the exception of a bison, I saw nothing in his collection which is not to be found in the museum of natural history at Paris.

The absence of Mr. W. Hamilton deprived me of the pleasure of seeing him. I visited his magnificent garden, situated by the side of the Schuylkill, four miles from Philadelphia. His collection of exotic plants is very considerable, particularly in those from New Holland. All the trees and shrubs of the United States, at least those which can support the winter in the open air at Philadelphia, are distributed among the groves of an English garden. It would be difficult to meet with a situation more agreeable than that of Mr. Hamilton's residence.

induced me to finish the journey on foot, but the observations of my friends determined me to join an American officer, whom I had met in the stage, and who was travelling to Pittsburgh, in purchasing a horse: we agreed to ride by turns.

CHAP. IV.

Departure from Shippensburgh for Strasburgh.—Passage of the Blue Ridges.—New Species of Rhododendrum.—Passage of the River Juniata.—Use of the Cones of the Magnolia accuminata.—Arrival at Bedford-Court House.—Excesses in which the Inhabitants of these Countries indulge.—Departure from Bedford.—Passage of the Allegany Ridge; and of Laurel Hill.—Arrival at West Liberty Town.

ON the morning of the 30th of June we quitted Shippensburgh, and, about noon, arrived at Strasburgh, a distance of ten miles. This town, which does not consist of more than forty log-houses, is situated at the bottom of the first chain of the Blue Ridges. The country through which we passed to it, although uneven, is better; and several dwellings are met with, where the cultivation appears to be in a superior state. Having taken a short rest at Strasburgh, we pursued our journey, notwithstanding the heat, which was excessive, and ascended the first ridge by an extremely steep and gravelly road. After a very fatiguing march of three quarters of an hour, we reached the summit. In this manner we traversed two other ridges of equal height, lying in the same direction. These three ridges form two small vallies, in the first of which are some houses about half way down the hill; in the second, which is more extensive, is situated Fenetsburgh, consisting of about thirty houses, on the two sides of the road. The farms in the neighbourhood are about twenty; each of them containing from two to three hundred acres of woodland, of which there is not, in general, more than seven or eight cultivated, and, very rarely, more than twenty or twenty-five. The want of hands, and the difficulty of finding a market, are the obstacles to the rapid progress of agriculture. In this part of Pennsylvania, each individual is satisfied with cultivating what is necessary for the subsistence of himself and his family, and according as it is more or less numerous, the cultivated spots are more or less extensive; whence it follows that the more children a man has capable of assisting him, the more ease he obtains; this is one of the principle causes of the rapid progress of population in the United States.

We travelled only twenty-six miles on this day, and slept at Fort Littleton, six miles from Strasburgh, at a very good tavern kept by Col. Bird. Beyond Shippensburgh the mountains are very stoney; the soil is bad; and the trees which grow in it have not an agreeable appearance, particularly the white oak, which is found on the summits, and the *Kalmia latifolia*, which abounds in the open places.

Next morning we set off betimes for Bedford-court house. From Fort Littleton to the river Juniata, there are very few plantations; one ridge succeeds another, and the intervals are filled with small hills. From the top of one of the most elevated of these ridges, the unevenness of this mass of mountains, covered with the endless forests, which spread over all this country, and through the whole of which no habitation is yet visible, offers a prospect greatly resembling the appearance of an agitated sea, succeeding a tempest.

Two miles before reaching the Juniata, the road divides into two branches, which meet at the river. That to the right stretches over the hills, and that to the left, which we took, appears to have been, or perhaps still is, the bed of a deep torrent, the shelving sides of which are very humid. They abound with the *Andromeda*, the *Vaccinium*, and principally with a species of *Rhododendrum*, of which the flowers are perfectly white. The filaments of the stamina are also white, and one-third shorter than the corolla: the anthers are of a pale rose colour, and the leaves more obtuse and smaller than those of the *Rhododendrum maximum*. These differences, which are sufficiently striking, will probably make it be considered a distinct species. I also found this beautiful shrub in the mountains of North Carolina. Its seeds were then at maturity, and I brought some of them to France, which have thriven very well. At this place, the river Juniata is not more than thirty or forty toises in width; its waters were very low, and we crossed it by a ford; but the greatest part of the year it is passed by means of a ferry boat. Its banks are high, and very agreeable. The *Magnolia accuminata* is plentiful in its neighbourhood, and is known in the country by the name of the *cucumber tree.* The inhabitants of the remote parts of Pennsylvania, and Virginia, and also of the western country, infuse the green cones in whiskey, to which it communicates a very bitter flavour. This bitter is in great repute in the country against intermitting fevers, but, without a doubt, its use would be much less frequent, if, with the same properties, it was made with water.

From the Juniata, crossing to Bedford-court house, the country, though still rough, is nevertheless better, and more inhabited than that we had passed through from Shippensburgh. The settlements, though seldom within sight of each other, are near enough to give a more lively appearance to the country. We reached Bedford at night-fall, and took up our lodging at a tavern, the master of which was known to my companion, the American officer. His house is spacious, and raised a story above the ground floor, which is very uncommon in this country. The day of our arrival was a rejoicing day to the inhabitants of the country, who had assembled at this town to celebrate the repeal of the duty on the whiskey distilleries; a considerable impost, which had prejudiced the inhabitants of the interior greatly against the late President Adams. The taverns, and particularly that in which we lodged, were filled with drunkards, who made a frightful uproar, and yielded to excesses so horrible as to be scarcely conceived. The rooms, the stairs, the yard, were covered with men dead drunk, and those who were still able to get their teeth separated, uttered only the accents of fury and of rage. An inordinate desire for spirituous liquors is one of the characteristics of the inhabitants of the countries in the interior of the United States. This passion is so powerful that they quit their habitations from time to time, to go and get drunk at the taverns, and I do not believe that there are ten in a hundred who could have the resolution to deprive themselves of it, for an instant, if they had it at hand. Nevertheless their common drink in summer is only water or sour milk. They do not relish cider, which they think too mild. Their distaste for this salutary and agreeable beverage is the more extraordinary, since they might easily procure it at little expense, for apple trees of every kind succeed wonderfully in this country. This is a remark which I have made both on the east and west of the Allegany mountains, where I have seen tall trees, raised from the seed, which yielded apples, eight or nine inches in circumference.

The houses at Bedford do not exceed

a hundred and twenty, of which some are brick, and the rest are built with planks. This small town, like all those on this route, trades in flour, which, with salted meat, is the only article of exportation from this country. During the war of the French revolution, the inhabitants found it more advantageous to send their flour to Pittsburgh, to be afterwards forwarded to New Orleans, from whence it was conveyed to the Antilles, than to send it to Philadelphia or Baltimore. Nevertheless it is only reckoned two hundred miles from Bedford to Philadelphia, and a hundred and fifty from Bedford to Baltimore, by a very well frequented road; while the distance from Bedford to New Orleans is 2200 miles; that is to say, a hundred miles by land to Pittsburgh, and 2100 miles by water, from Pittsburgh to the mouth of the Mississippi. Hence it is evident that the navigation of the Ohio and the Mississippi is very easy and not expensive, since it compensates the enormous difference between these two distances. The position of New Orleans, with respect to the Antilles, gives, therefore, to this port, very striking advantages over all the eastern ports of the United States, and, in proportion as the new western states increase in population, New Orleans will become the centre of an immense commerce. Other facts will presently be brought in support of this observation.

Next morning, July the 1st, we quitted Bedford very early. The heat was excessive, the ridges over which we were obliged to pass, and the little mountains between these ridges, made the road very fatiguing, we travelled only twenty-six miles this day. The road divides four miles from Bedford; we took that to the left, and stopped to breakfast with a miller, who keeps a tavern. We there found a man lying on the ground, wrapped in a blanket, who, the evening before, had been bitten by a rattlesnake. The first symptoms which appeared, an hour after the accident, were a violent vomiting, succeeded almost immediately by a strong

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fever. At the time when I saw him, his leg and thigh were prodigiously swelled, his respiration very laborious, his physiognomy turgid, and resembling some hydrophobic patients whom I had had an opportunity of seeing at La Charité. I asked him some questions, but he was so exhausted that I could not obtain any answer from him. From the people of the house I learnt that immediately after the bite they had applied the juice of some plants to the wound, while waiting for the doctor, who lived fifteen or twenty miles off. I have known several persons in America who had met with the same accident. Those who survived it were constantly valetudinarians, and extremely affected by the variations of the atmosphere. The plants made use of against the bite of the rattlesnake are numerous, and almost all taken from among the succories. There are many of these serpents in the mountainous parts of Pennsylvania: we found a great number killed on the road. In hot and dry weather, they come from under the rocks, and descend to places where there is water.

On this day we crossed the ridge more particularly known by the name of the *Allegany ridge*. It is ascended by a road extremely steep, and covered with enormous stones. We reached its summit after a very laborious march of two hours. It is really astonishing that loaded carriages can, with so much facility, and so few accidents, pass this multitude of high hills or ridges, which succeed each other, without interruption, from Shippensburgh, as far as Pittsburgh, and the intervals of which are filled with little mountains of a less elevation.

The Allegany ridge is the highest in Pennsylvania; at its summit are two very indifferent log-houses, three miles asunder, which are used as taverns. These are the only habitations met with on the road beyond Bedford; the rest of the country is uninhabited. We stopped at the second, kept by a man of the name of Chatlers, which was well provided, considering the country; for, at dinner, we

Lancaster. Two hundred houses, some of which are built of brick, compose this town, which contains several stores. In these stores, which are met with all through the interior of the country, are sold mercery, haberdashery, and grocery, and also liquor. Those who keep them also purchase or take the produce of the land in exchange from the farmers, which they afterwards forward to the sea-ports.

From Macolegan's tavern to Carlisle the country is uneven, mountainous, and bad: and for that reason, the plantations on the road side are few, and at a distance of one, two, or three miles from each other; but out of the road they are still farther asunder. White, red, and quercitron oaks, chestnuts, and maples, are the trees most common in the forests. On the summits of the hills is to be seen the *Quercus banisteri.* From Carlisle to Shippensburgh the country continues to be mountainous and thinly inhabited; the soil is of a very bad nature. There are only a few houses on the road, the miserable appearance of which is an evident proof that their inhabitants are far from comfortable, and scarcely obtain a subsistence from the land.

At Shippensburgh the stage stopped at the house of Colonel Ripey; who keeps a good tavern, the sign of the General Washington. He is very obliging to the travellers who use his house in their way to the western country. Shippensburgh has scarcely seventy houses: its trade is in flour, which, at this time, was worth five piasters a barrel, weighing a hundred and ninety-six pounds.

The distance from Shippensburgh to Pittsburgh is one hundred and seventy miles. The stages not going farther, travellers are obliged to perform the remainder of this journey on foot, or to purchase horses. They are always on sale, but the owners are so well informed of the necessity, that the purchaser must pay double their value, and on their return to Pittsburgh, are obliged to sell them again for not more than half. Economy would have to be very fertile. It was near this spot that the French, when they were masters of Canada, had built Fort Ligonier: for all that part of the United States, west of the Allegany mountains, belonged either to Canada, or to Louisiana.

CHAP. V.

Departure from West Liberty Town to go into the Mountains in Search of a Shrub supposed to yield good Oil.—New Species of Azalea.—Ligonier's Valley.—Mines of Pit-Coal.—Greensburgh.—Arrival at Pittsburgh.

WHEN I passed through Lancaster, Mr. W. Hamilton informed me that, at a short distance from West Liberty Town, and near the plantation of a person of the name of Patrick Archibald, there was a shrub to be found, the fruit of which, as he had been told, yielded a very good oil. Some persons at New York and at Philadelphia had also heard it spoken of, and hopes were entertained that if it could be cultivated on a large scale, it might become of great utility. Indeed it was greatly to be wished that a shrub might be found, which, to the valuable properties of the olive, added that of being able to bear the cold of the most northern countries. Influenced by these motives, I quitted my fellow-traveller, to go into the mountains in quest of the shrub. Two miles from West Liberty Town, I passed *Probes's Furnace*, a foundery established by an Alsatian Frenchman, who fabricates caldrons of yellow copper of different sizes. The largest will contain two hundred pints; they are sent to Kentucky and Tennessee, and employed in the preparation of salt by evaporation. Others, of a much smaller size, are intended for domestic use. The road which I was to follow had been very well described to me at the foundery. I, however, frequently lost myself, for there are only footpaths more or less beaten, leading to the different plantations dispersed through the woods; but I was very civilly directed into my road again at every one of them, and reached Patrick Archibald's the same night, who made no difficulty in receiving me when he learnt the object of my visit. This man, who possesses a mill, might easily be better accommodated; he, however, inhabits only a miserable log-house, of one room, thirty feet long by twenty-four feet wide, open to the weather on all sides. Four large beds, of which two low ones are pushed under the other two in the day-time, and at night drawn into the middle of the room, receive all the family, consisting of ten persons, and, sometimes strangers, who seek a lodging there. This mode of life, which, in Europe, would announce the greatest distress, is not at all occasioned by it, in this country; for, in an extent of more than two thousand miles which I travelled, I did not find a single family without milk, butter, smoked or salted meat, and maize for their food: the poorest man has always one or more horses, and it is very seldom that a planter goes on foot to see his neighbours.

The day after my arrival, I proceeded into the woods, and at my first excursion found the shrub which was the object of my search. I recognized it as being the same which my father had discovered fifteen years before in the mountains of South Carolina, and which, notwithstanding his care, he could not make succeed in his garden near Charlestown. Mr. W. Hamilton, who had also received seeds and shoots from this part of Pennsylvania, had not been more successful. The seeds become so soon rancid, that, in a few days, they lose their germinating property, and acquire an extraordinary acrimony. This shrub, which seldom rises more than four feet above the ground, is dioecious. It grows exclusively on mountains, and is only found in cool, shady places, where the soil is very fertile. Its roots, which are of a citron colour, are not divided: they extend horizontally to a great distance, and give birth to off-sets, which seldom rise to more than eighteen inches in height. The roots and bark yield a disagreeable smell on being bruised. I charged my host to collect half a bushel of the seeds, and to send them to Mr. W. Hamilton, pointing out to him the precautions it would be necessary to take to keep them fresh until they could reach him. On the banks of the creek on which P. Archibald's mill is built, and on the sides of the torrents met with in its environs, grows a species of *Azalea* which was at this time in flower. It grows to the height of twelve or fifteen feet. Its flowers, which are perfectly white, and larger than those of the other known species, diffuse the most agreeable odour. The *Azalea coccinea*, the flowers of which are of a bright red, grows, on the contrary, on the summits of mountains, and flowers two months earlier.

Ligonier's Valley is fertile: in it are cultivated wheat, rye, and oats. Some of its inhabitants plant maize on the tops of the mountains, but it does not thrive well, the climate being too cold: the sun is not visible here until three quarters of an hour after it has risen. Hemp and flax are also cultivated here, and a sufficient quantity of them is gathered to supply the wants of the family; for all the women can spin and weave, and they make their own clothes and those of the family. The price of the land is from one to two piasters an acre. The taxes are very light, and are never complained of. In this part of the United States, as in all mountainous countries, the air is very healthy. I have seen old men here upwards of seventy-five years of age, which is very uncommon in the states bordering on the Atlantic, to the southward of Pennsylvania. At the period of my journey into this country, the measles were very prevalent: by the desire of my host I visited several of his relations and friends who had them, and found them all drinking whiskey to promote perspiration. I recommended them a decoction of the leaves of the slippery elm, with the addition of a spoonful of vinegar and an ounce of maple sugar to each pint. The country being poor and the population still scanty, there are very few medical men, and, in an urgent case, they must be fetched from a distance of twenty-five or thirty miles.

On the fourth of July, I quitted the house of P. Archibald, and proceeded to Greensburgh, which is eleven miles from it. Almost immediately after leaving the house I was obliged to ascend *Chestnut ridge*, a steep hill, the summit of which, for an extent of two miles, offers only a dry, bad soil, in which nothing grows but stinted white oaks and shoots of chestnut trees: but on approaching Greensburgh, the aspect of the country changes, the soil becomes better, the plantations, though surrounded with woods, are nearer than in Ligonier's Valley. The houses, which are larger, have generally two stories. The superior cultivation of the land, and the better condition of the fences which divide their grounds, are sufficient indications that this is a settlement of Germans: with them every thing announces that comfort which is the reward of the assiduity and labour. They assist each other in their harvests, they intermarry with each other, always speak German, and preserve, as much as possible, the manners of their European ancestors. They live much better than the American descendants of the English, Scotch, and Irish. They are not so much addicted to spirituous liquors, and have not, like them, that unsteady disposition, which frequently, from the most trifling cause, induces them to emigrate several hundred miles, in the hope of finding a more fertile territory.

Before reaching Greensburgh, I observed some parts of the woods which consisted entirely of the white oak, *Quercus alba*; the softer green of its foliage contrasted very agreeably with the deeper colour of the other species of trees. A mile from the town, and on the edge of a deep ravine, I observed unequivocal indications of a mine of pit-coal. I learnt both at Greensburgh and Pittsburgh that this substance is so common and so easily procured, that several of the inhabitants burn it for cheapness. This does not arise from a deficiency of wood; the whole country is covered with it: but labour is so very dear, that there is not a landholder at Pittsburgh who would not sell a cord of wood for half the price which coals would cost, if the purchaser would go a mile to fell the trees, and bring them home.

Greensburgh contains about a hundred

houses. This town is built on the summit of a hill, on the road from Philadelphia to Pittsburgh: it is also in the route of a great number of emigrants, going to settle near the lakes. The soil of the neighbourhood is fertile: the inhabitants, who are all of German origin, cultivate wheat, rye, and oats with success: the flour is exported to Pittsburgh.

I lodged at the Seven Stars, with one Erbach, who keeps a good tavern. I there met with a traveller who came from the state of Vermont, and we slept in the same room. Without entering into an explanation of the intentions of our journies, we mutually communicated our remarks on the countries we had passed through. He had travelled six hundred miles, after leaving the place of his residence, and I had travelled four hundred from New York. He proposed that we should proceed together as far as Pittsburgh; but I observed to him that I was on foot, for which I accounted to him; for, in America it is very uncommon to travel in this manner, the poorest planter always possessing one or more horses.

It is reckoned thirty-two miles from Greensburgh to Pittsburgh; the road between them is very mountainous: to avoid the heat, and accelerate my journey, I set off at four o'clock in the morning. I had no trouble to get out of the house, the door being only shut with a latch: in the taverns of the little towns, on the contrary, they are very careful to lock the stables; for horse-stealers are not uncommon in some parts of the United States, and this is one of the accidents to which travellers are the most liable, particularly in the southern states, and in the western country, where they are frequently obliged to sleep in the woods. Sometimes also they steal them from the planters, which is the more easy, because the horses live part of the year in the forests, and, in the spring, stray several miles from the house; but on the slightest trace of the route which the thief has taken, the injured planter commences a vigorous pursuit, and very frequently succeeds in overtaking him: he then confines him in the prison of the county in which he is apprehended, or, which is also very common, kills him on the spot. In the different states, the law sagainst horse-stealing are very severe; this severity appears to have arisen from the facility which the country offers for the commission of this offence.

I had walked fifteen miles when I was overtaken by the American traveller whom I had met at Greensburgh the night before. Although he was on horseback, he had the civility to slacken his pace, and we kept company as far as Pittsburgh. This second interview produced a better acquaintance. He informed me that it was his intention to descend the Ohio. As this was also my object, I conceived a wish to proceed in his company, and this the more willingly, because he was not a lover of whiskey; for, when the heat obliged us to stop at any of the numerous taverns on the road, I observed that he drank but a small quantity of this liquor in water, and that had slices of ham and deer's flesh fried, and cakes of wheat-bread baked before the fire on a small board.

Notwithstanding a very heavy rain, we went this day to Stanley Town, to sleep: it is a small town, which, like all those of this part of Pennsylvania, is built on a hill. It consists of about fifty houses, half of which are log-houses: here are several taverns, and two or three stores, which procure their commodities from Philadelphia. It is seven miles from Chatlers; the intermediate country is very fertile. The trees are of a very great height; those most frequent in the woods are the white, the red, and the quercitron oaks, the beech, the tulip-tree, and the *Magnolia acuminata.*

The horse which we bought at Shippensburgh, and which we rode by turns, was very much fatigued, and we got forward very little faster than if we had been constantly on foot. But the American officer with whom I travelled was anxious to arrive at Pittsburgh by the 4th of July, to assist at the celebration of the anniversary of the

American independence. To gain a day, therefore, he determined to hire a horse at Stanley Town, with which we crossed *Laurel Hill*, the passage over which is four miles. The direction of this ridge is parallel to that of the ridges we had left behind us, the woods which cover it are thicker and vegetation brisker. The name given to this mountain is doubtless taken from the great quantity of *Kalmia latifolia*, from eight to ten feet high, which, exclusively, occupies every spot a little open; and from the *Rhododendrum maximum* which covers the banks of the torrents; for the inhabitants generally call the *Rhododendrum* a laurel, as well as the *Kalmia latifolia*. This latter shrub is also called by some the *Calico-tree:* the leaves of this tree are said to be a very active poison to sheep, causing them to die almost immediately after eating it. At the bottom of Laurel Hill begins Ligonier's Valley, in which, at the distance of a quarter of a mile from the mountain, is situated West Liberty Town, consisting of about twenty log-houses. The soil of this valley appears mer. Living is about one-third cheaper than at Philadelphia. Here are two printing-offices, each of which publishes two newspapers a week.

Pittsburgh has been long considered by the American government as the key of the western country. It was from hence that the operations of the federal forces were directed against the Indians, who opposed the first establishments of the Americans in Kentucky, and on the banks of the Ohio. But now that the Indian nations have been driven to a very great distance, and reduced to the impossibility of injuring the most remote planters, in the interior of these states; and as, besides, the western country has acquired a great mass of population, there is only a weak garrison left at Pittsburgh, which is lodged in a small palissaded fort, adjoining the town, on the banks of the Allegany river.

But if this town has lost its importance as a military post, it has acquired a very great one in a commercial view. It serves as a staple for the merchandize sent from Philadelphia and Baltimore, at the commencement of the spring and autumn, for the supply of the states of the Ohio and Kentucky, and of the establishment of the Natches. In the course of the last war, these two cities also forwarded their goods to New Orleans, by the way of the Ohio, and the Mississippi.

The merchandize is conveyed from Philadelphia to Pittsburgh in large covered waggons, drawn by four horses, harnessed two and two. The price of the carriage varies according to the season: but, in general, it does not exceed six piasters the quintal. It is reckoned three hundred miles from Philadelphia to Pittsburgh, and the carriers are from twenty to twenty-four days in travelling this distance. The expense of carriage would certainly not be so great, were it not that the waggons almost always return empty: they, however, sometimes, on their return to Philadelphia, or Baltimore, bring back furs which are obtained from the Illinois, or Ginseng, which is very common in this part of Pennsylvania.

Pittsburgh is not only the staple of commerce for Philadelphia and Baltimore, with the western country, but it is also that of the numerous establishments which are formed on the Monongahela and Allegany rivers. The territorial products of these countries find an easy and advantageous vent by the Ohio and the Mississippi. Flour, hams, and smoked pork are the principal articles sent to New Orleans, whence they are re-exported to the West Indies. They also export, for the consumption of Louisiana, bar-iron, coarse cloths, bottles made at Pittsburgh, whiskey, and barrelled butter. A great part of these articles come from Redstone, a very commercial little town, situated on the Monongahela, fifty-five miles above Pittsburgh. All these advantages combined, have, within ten years, augmented the population and the value of property in this town, tenfold, and still contribute to their increase, which every day becomes more rapid.

The greater part of the traders established at Pittsburgh, or in its environs, are partners, or factors to the commercial houses at Philadelphia. Their correspondents at New Orleans sell as much as they can for ready money, or they take in exchange cottons, indigo, clayed sugar, the productions of Lower Louisiana, which they forward, by sea, to the houses at Philadelphia or Baltimore, who are thus covered for their first advances. The conductors of the boats also return by sea to Philadelphia or Baltimore, whence they proceed, by land, to Pittsburgh, and its neighbourhood, where most of them reside. Although the length of the passage to one of these two ports is from twenty-five to thirty days, and they have afterwards to make a journey of upwards of three hundred miles by land to Pittsburgh, they give the preference to this route, because it is less fatiguing than returning by land from New Orleans to Pittsburgh, the latter distance being fourteen or fifteen hundred miles. But when the boats are only bound to Limestone in

Kentucky, or Cincinnati, in the state of the Ohio, the conductors return by land, and then make a journey of four or five hundred miles.

The navigation of the Ohio and the Missisippi is so much in use, that the distance from Pittsburgh to New Orleans is now known with great precision: it is fixed at 2,100 miles. The carrying boats generally require, in the spring, from forty-five to fifty days to perform this passage, which two or three persons, in a light vessel *(pirogue)* can accomplish in twenty or twenty-five days.

It is not perhaps known to many people in Europe, that vessels of a considerable tonnage are built at Pittsburgh, and on the Ohio. One of the principal dock-yards is on the Monongahela, two hundred toises from the last houses in the town. The timbers employed in their construction are the white oak, *Quercus alba*; the red oak, *Quercus rubra*; the black oak, *Quercus tinctoria*; a species of walnut, *Juglans pignut*; the cluster cherry-tree, *Cerasus Virginiana*;

and a species of pine, which is used for masts, and also for such parts of the vessel as require a lighter wood. All these woods being in the vicinity, the expenses of construction are less considerable than in the ports of the Atlantic states. The cordage is fabricated at Redstone, or at Lexington, where two good rope-walks are established, which also supply the ships built at Marietta and Louisville. When I was at Pittsburgh, in July 1802, there was a three-masted vessel* on the stocks, of two hundred and fifty tons burthen, and a galliot of ninety, which were nearly finished. These vessels were to go down to New Orleans in the following spring, with a cargo of the productions of the country, and, before reaching the ocean, would make a voyage of near 2200 miles. There is not a doubt but that, hereafter, vessels will be constructed two hundred leagues above the mouth of the Missouri, fifty above that of the Illinois river, and also in the Mississippi, two hundred leagues above the place where these rivers join it; that is to say, six hundred and fifty leagues from the sea, for in the spaces mentioned, their depths are as great as that of the Ohio at Pittsburgh, and it would be wrong to suppose, that, in time, the vast countries watered by these rivers will not be sufficiently populous to execute such enterprises. The rapid population of the three new western states, in circumstances infinitely less favourable, warrant this opinion. These states, in which, thirty years ago, there were scarcely three thousand inhabitants, have at present more than four hundred thousand; and among all the plantations, which on the roads, are seldom more than four or five miles asunder, it is very uncommon to find one, even of the most flourishing, of which the proprietor may not be asked, with confidence, from whence he emigrated, or, in the trivial language of the Americans, *From what part of the world are you come?* as if these west and fertile regions were intended to be the point of concentration, and common country of all the inhabitants of the globe. Now if we consider these astonishing and rapid ameliorations, what ideas shall we not form of the high degree of prosperity to which these western countries may attain, and of the great increase which the commerce, population, and culture of this country will acquire by the union of Louisiana to the American territory.

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* Since my return, I have been informed that this ship, called the *Pittsburgh*, had arrived at Philadelphia.

The river Monongahela rises in Virginia, at the foot of Laurel mountain, which forms part of the chain of the Allegany mountains: it then directs its course to the west, and passes through Pennsylvania, and before forming a junction with the Allegany, receives in its course the rivers Cheat and Youghiogheny, which come from the south-south-east. The territory watered by this river is very fertile, and the establishments formed on its banks are not far removed from each other. It begins to be navigable at Morgan's Town. This town which consists of he gave the preference to sour milk when it could be got. In this respect he differed very much from the American officer with whom I had travelled almost all the way from Shippensburgh.

Nineteen miles from Greensburgh, on the left, is a road which shortens the journey about three miles, but which is only practicable for horse and foot-passengers. We followed it, and, in half an hour, discovered the river Monongahela, which we coasted until within a short distance of Pittsburgh. A very heavy shower obliged us to take shelter in a house, about a hundred toises from the river. The owner perceiving we were strangers, informed us that this was the spot on which the French, in the seven years war, had completely defeated General Braddock; he showed us several trees which were damaged by the balls. I experienced a pleasing satisfaction at seeing, in the midst of these forests, the theatre of French valour, on which a small number of soldiers, united with some savages, destroyed a numerous army, well appointed, and commanded by an English general, who lost his life in the action.

We arrived early at Pittsburgh, and I went to lodge with a Frenchman of the name of Marie, who keeps a very good tavern. I was heartily rejoiced at my arrival, having began to grow weary of travelling in so mountainous a country; for, in the extent of nearly a hundred and eighty miles, which I had travelled almost wholly on foot, and through intense heats, I do not believe that I had proceeded fifty toises without ascending or descending.

CHAP. VI.

Description of Pittsburgh.—Commerce of this Town, and of the adjacent Country, with New Orleans.—Construction of Vessels of large Burthen.—Description of the Rivers Monongahela and Allegany.—Towns situated on the Banks.—Agriculture.—Maple Sugar.

PITTSBURGH is situated at the confluence of the rivers Monongahela and Allegany, by the union of which the Ohio is formed. The plain on which it is built is not more than forty or fifty acres in extent. It is in form of a triangle, the three sides of which are every where embraced either by the bed of the two rivers or by high hills. Almost all the houses are of brick; there are about four hundred, the greatest number of which are built on the Monongahela, and the most commercial part of the town is also on this side. Since many of the houses do not touch, and the intervals which separate them are pretty large, all the surface of this spot is completely occupied, and buildings are already commenced on the sides of the high hills which overlook the town. It was at the extremity of this angle that the French had constructed Fort Duquesne, which is entirely destroyed, and of which nothing is now to be seen but the vestiges of the ditches which surrounded it. From this spot may be enjoyed a most agreeable prospect, produced by the view of these three rivers, the banks of which are embellished with forests, but particularly that of the Ohio, which stretches forward in a straight line, and permits the eye to follow its course to a very great distance.

The air of Pittsburgh and its environs is very healthy: the intermitting fevers, so common in the southern states, are not known here, nor are the inhabitants tormented with musquitoes during the sum-about sixty houses, is situated on its right bank, a hundred and seven miles from its mouth. Of all the small towns built on the Monongahela, those in which commerce is carried on with the greatest activity, are New Geneva and Redstone. At the first there is a glass-house, for the fabrication of bottles only, which are exported into the western country: the second contains five hundred inhabitants. Here are flour mills, a rope walk, and a manufacture of paper. Many of the emigrants from the eastern states embark at this town, in their way to the western country. Large boats called *Kentucky boats* are also built here, to be employed in the commerce of Kentucky. They are likewise built at Elizabeth Town, situated on the same river, twenty-three miles from Pittsburgh: the *Monongahela Farmer*, a vessel of two hundred tons burthen, was launched at this town.

The source of the Allegany is situated fifteen or twenty miles from Lake Erie; in its course it is increased by French Creek, and other smaller rivers. The Allegany begins to be navigable at two hundred miles from Pittsburgh. The banks of this river are fertile, the planters settled upon it, as well as those on the Monongahela, export the products of their grounds, by the way of the Ohio and the Mississippi. Several small towns begin to appear on the banks of this river; the most considerable are Meadville, distant two hundred and thirty-five miles from Pittsburgh, Franklin, at two hundred, and Freeport, which is only one hundred miles from that place. Each of these towns consists, at present, of forty or fifty houses.

Whatever the state of the weather may be, the waters of the Allegany are clear and limpid, those of the Monongahela, on the contrary, become turbid whenever there are a few days of successive rain, in that part of the Allegany mountains where it rises.

The sugar maple is very common in all that part of Pennsylvania, which is watered by the Monongahela and the Allegany.

This tree thrives best in cold, humid, and mountainous countries, and its sap is more abundant, as the winter has been more severe. The sugar obtained from it has as dark a colour as that of the clayed sugar of the first boiling, it is sold in loaves of 6, 8, or 10 pounds, at seven pence per pound. The inhabitants only make it for their own use, most of them have tea or coffee every day, but they only use it in the state in which it is obtained from the first evaporation of the sap: they do not refine it, on account of the great loss it sustains in this operation.

CHAP. VII.

Of the Ohio.—Navigation of that River.—Mr. S. Craft.—Object of his Journey.—Information relative to the State of Vermont.

THE Ohio, formed by the junction of the rivers Monongahela and Allegany, appears to be rather a continuation of the first than of the second, which arrives at the conflux in an oblique direction. At Pittsburgh, the breadth of the Ohio may be about two hundred toises. The course of this great and magnificent river takes at first a north-west direction for about twenty-five miles, then turning gradually towards the west-south-west, it follows this direction through an extent of nearly five hundred miles; it afterwards inclines to the south-west for a hundred and sixty miles, then to the west for two hundred and seventy-six miles, and, finally, runs into the Mississippi in a south-east direction, in latitude, 36.° 46.′ at a distance of 1100 miles from Pittsburgh, and nearly as much from New Orleans. This river is very crooked, so much so, that in descending it, it frequently appears as though the course was directly opposite to that which was intended. Its breadth varies from two hundred to a thousand toises. The islands met with in it are very numerous. I have counted nearly fifty in a distance from three hundred and seventy-five to three hundred and ninety miles in extent. Some of them contain only a few acres, while others are above a mile in length. Their banks are low, and they must be very liable to inundations. These islands are very injurious to the navigation in the summer. The sand carried down by the river forms considerable accumulations at the upper part of each of them: and at that season the channel is so straitened, by a deficiency of water, that the few boats, even of a middling size, which then dare to venture down it, frequently get aground, and are not floated again without great difficulty; but there is water enough, at all times, for a canoe or a skiff. These vessels being very light are easily lifted or pushed along when they run on a shoal, until they reach a place where the water is deeper. It is therefore only in the spring and autumn that the Ohio is navigable, at least above Limestone, four hundred and twenty-five miles from Pittsburgh, for below that place it is so all the year. In these two seasons, the waters are raised to such a height, that vessels of 300 tons burthen, steered by men well acquainted with the river, may descend it with perfect safety. The spring season commences at the end of February, and lasts three months; that of the autumn begins in October, and continues only to the 1st of December. These two periods, however, are forwarded or retarded as the winter has been more or less rainy, or as the rivers thaw sooner or later. Sometimes, in the course of the summer, abundant rains fall among the Allegany mountains by which the Ohio is suddenly raised; then it may be descended with safety, but such occurrences are not to be depended on.

The banks of the Ohio are high and firm; its course is free from a multiplicity of obstacles which render the navigation of the Mississippi difficult, and often dangerous, without skilful pilots. On the Ohio, there is no danger in proceeding all night; while on the Mississippi, prudence renders it necessary to stop every evening, at least from the influx of the Ohio as far as the Natches, that is to say, for a distance of nearly seven hundred and fifty miles.

The current of the Ohio is extremely rapid in the spring, at that season, therefore, it is not necessary to row: the additional motion given to the boat by it would be rather injurious than useful, by carrying it out of the current, and running it on the point of some of the islands, where it might be entangled among the dead trees, half under water, which are sometimes collected there, and from which it is not easy to get disengaged. The current therefore, should be trusted to, which is always strong enough to carry the boat forward with great celerity, and is uniformly most rapid in the direction of the channel. The extreme rapidity of the Ohio is the occasion of the form given to the boats which navigate it, which is not calculated to accelerate their progress, but to counteract the swiftness of the current. All the boats, whether they are engaged in the commerce of Kentucky, or of the Mississippi, or are employed in conveying the families which pass from the eastern to the western states, are constructed in the same manner. They are of a larger or shorter, square form, with the sides raised about four feet and a half above the water, their length is from fifteen to fifty feet, their breadth ten, twelve, or fifteen feet, and their ends are not rounded as in common boats. A small roof made with shingles, like those of houses, covers one end of them. This is the place in which the night is passed, and which serves for shelter from rain. I was alone on the banks of the Monongahela, when, for the first time, I observed five or six of these boats floating down the river. I could not conceive what these large square boxes were, which, abandoned to the current, presented, by turns, their ends, their sides, and their corners. As they approached, I heard a confused noise, but the height of their sides prevented me from distinguishing any thing. By getting on the bank of the river, I at length discovered several families in these boats which also conveyed their horses, their cows, their poultry, their dismounted carriages, their ploughs, their harness, their beds, their agricultural tools, in fact every thing which is required for furnishing af arm-house, and cultivating the land. These people abandoned themselves in this manner, for several hundred miles, to the current of the river, probably without knowing the place where they might stop, and enjoy in tranquillity the fruits of their industry, under one of the best governments existing in the world.

I remained ten days at Pittsburgh, during which I frequently saw the Chevalier Dubac, formerly a French officer, who, being compelled by the occurrences of the revolution to quit France, had, at first fixed his abode at Scioto, but soon afterwards changed his residence, and settled at Pittsburgh, where he is engaged in commerce. His knowledge of the western country is very correct, he is also perfectly acquainted with the navigation of the Ohio and the Mississippi, having several times performed the voyage to New Orleans, and, with the greatest politeness, he gives to the few of his countrymen who visit this part of the world, such information as will render their passage easy, and prevent the accidents they might otherwise encounter.

During my residence at Pittsburgh I formed a more intimate acquaintance with my fellow-traveller, Mr. Samuel Craft, a planter of the state of Vermont, whom I first met at Greensburgh. Among other things I learnt from him, that in that state and those which lie contiguous to it, the expense of clearing the land is always covered by the produce of the potash extracted from the ashes of the burnt trees, and that there are also people who undertake this business on the single condition of having this potash. This species of economy, however, does not exist in the other parts of North-America; for in all the eastern states, commencing from that of New York, and in all those to the westward, the trees are burnt and totally lost; it is true, the inhabitants of New England, properly so called, which comprehends all the states to the east of that of New York, are acknowledged to be the most enterprizing, the most industrious, and the best acquainted with domestic economy, of all the American people.

Mr. Craft afterwards acquainted me with the intent of his journey, which was to satisfy himself respecting the reports of the salubrity and extraordinary fertility of the banks of the river Yazous, and, if he found them true, to procure for himself, and some friends, several thousand acres of land, and to go and settle there with some of the families in his neighbourhood, who were not in easy circumstances. One of his motives for emigrating into so remote a country was founded on the length of the winters, which, in the state of Vermont, are as severe as in Canada, and clog the activity of its inhabitants for more than a third part of the year; another was the small value of the products of their land; while, in the countries watered by the river Yazous,* the temperature of the climate, and the fertility of the soil, permit the culture of cotton, indigo, and tobacco, the profits on which are much more advantageous than those of the northern parts of the United States, and the sale is secured by their exportation to New Orleans, whither they may go and return, by the river, in less than fifteen days.

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* The river Yazous falls into the Mississippi, between the thirty-second and thirty-third degrees of latitude.

CHAP. VIII.

Departure from Pittsburgh for Kentucky.—Journey by Land to Wheeling.—State of Agriculture on this Road.—West Liberty Town in Virginia.—Wheeling.

MR. CRAFT and I agreed to travel together as far as Kentucky, by the Ohio, preferring this route, although a hundred and forty miles longer, to that by land, which is more expensive. But as this was the season at which the waters are lowest, to gain time, and avoid a considerable circuit which the river makes on leaving Pittsburgh, we were advised to embark at Wheeling, a small town situated on the Ohio, eighty miles lower down, following the river, but much nearer by land. On the 14th of July, in the evening, we set off on foot, and crossed the Monongahela at John's ferry, situated on the opposite side, at the foot of Coal hill, a very high hill, which, on this side, is close to the river, for a considerable distance; and terminates the prospect of all the houses in Pittsburgh, which are built on its right bank. After having coasted along the Ohio for about a mile and a half, we struck into the wood, and came to a bad tavern, on Chartier creek, to sleep, where there is only one bed, intended for travellers. When several meet here, the last comers lie on the floor, wrapped in the blanket, which those who travel in the back parts of the United States, always carry with them.

Next day we proceeded twenty-eight miles, and took up our lodging with one Patterson. On this road, the plantations are two or three miles distant, and still farther asunder in the interior of the country: this observation is applicable to all the roads which cross these countries. The inhabitants of this part of Pennsylvania are very regular in their manners, and very religious: in some places we saw churches insulated in the woods, and in others, places for preaching, fixed under large oaks. Patterson possesses a considerable farm, and a good corn-mill, built on a small river: he sends his flour to New Orleans. Rivers and creeks are not very numerous in this part of the country, which obliges the inhabitants to have recourse to mills worked by horses; but the flour made in them is consumed in the country, not being fit for commerce. No one has yet thought of constructing wind-mills, although on the summits of some of the hills there are clear spots, which offer favourable situations.

On the 16th of July we arrived at Wheeling, very much fatigued; we were on foot, and the heat was extreme. Our march had been rendered more fatiguing by the nature of the country, which is a succession of hills, almost joining each other, and requiring twenty or five-and-twenty minutes to reach their summits. Six miles from Patterson's, we reached the line of demarkation which separates Pennsylvania from Virginia, and intersects the road at right angles. This line is traced by abbatis formed on elevated spots, with trees of the largest size, and from thirty to forty feet in breadth. Twelve miles before we arrived at Wheeling, we passed through West Liberty town, a small town of about a hundred houses, built on the side of a hill. The plantations in its neighbourhood are more numerous, and the soil, though unequal, is fertile. The produce of the land varies: it yields from fifteen to twenty bushels of wheat per acre, when well cleared, but only from twelve to fifteen when that is not complete; that is to say, while the stumps remain; for in clearing the land, they begin by felling the trees two feet above the ground, and afterwards the stumps are exterminated in succession. It may be proper to observe, that the planters only plough the land once, do not manure it, and never let it lay fallow. The price of the land depends upon its quality. The best, in the proportion of twenty to twenty-five acres of cleared land, in a lot of two or three hundred, is not worth more than three or four piasters an acre; the taxes are about an halfpenny or a penny an acre. Hands being scarce, labour is dear, and bears no proportion to the price of produce; whence it follows, that in all the midland and southern states, lying fifty miles from the sea, each proprietor clears very little more than he can cultivate with his family, or with the reciprocal aid of his neighbours. This is more particularly applicable to the western country, where each individual may easily procure land, and is excited to work by the incomparable fertility of the soil.

A mile and a half from West Liberty town, the road passes through a narrow valley, four miles in length, the sides of which, in some places from twenty-five to thirty feet in height, exhibit strata of coal, five or six feet in thickness, and lying in a horizontal direction. This substance is extremely common in all this part of Virginia and Pennsylvania; but the country being one continued forest, and its population very thin, considering its immense extent, these mines are not opened. They would be worked with great advantage if they were situated in the eastern states, where, in large towns, they burn coal, imported from England, on account of the high price of wood.

The trees growing in this valley are very close, their diameters large, and their species much more varied than in the countries through which I had hitherto passed. These signs, indicating an extremely fertile soil, are observable in all the valleys, where, as in this, run large rivulets or creeks, which fall into the Ohio, and of which the soil greatly resembles in its nature, and yields nearly the same productions, as the low lands bordering on this river.

Wheeling, situated on one of the high banks of the Ohio, was not in existence twelve years ago. At present, it contains about seventy houses, built of planks, which, as in all the rising towns of the United States, are separated by an interval of several toises. This little town is confined by a long hill, from a hundred and eighty to two hundred toises in height, the base of which is not farther from the river than about two hundred toises. In this interval the houses are built: they form only one street, having the road in the middle, which follows the course of the river for upwards of two hundred miles. Here are twelve or fifteen well provided stores, from which the inhabitants for twenty miles round are supplied. This small town also participates in the exportation trade carried on between Pittsburgh and the western country. Several of the traders of Philadelphia prefer sending their merchandize here, although it is a day's journey farther; but this slight inconvenience is amply compensated by the advantage they derive, in avoiding the long circuit made by the Ohio on quitting Pittsburgh, in which the very numerous shallows, and the want of rapidity in the current during the summer, retard the navigation.

At Wheeling, we lodged with Captain

Reymer, who keeps a tavern at the sign of the Waggon, and takes boarders for two piasters a week. The living is very good at his house for this money, for provisions are not dear here: twelve fowls are sold for a piaster, and a quintal of flour was not, at that time, worth more than a piaster and a half.

CHAP. IX.

Departure from Wheeling for Marietta.—Appearance of the Sides of the Ohio.—Nature of the Forests.—Extraordinary Bulk of some Species of Trees.

ON the 18th of July, in the morning, we purchased a pirogue or canoe, about four-and-twenty feet long, eighteen inches wide, and as much in depth. These canoes are always made of a single trunk of a tree. The pine and the tulip-tree are preferred for this use, their wood being the lightest. These canoes are so narrow that the oar cannot be easily used. They are set forward with a paddle, or with a pole, when the water is shallow. Being sometimes, obliged, in order to shorten the passage, to quit the sides of the river, where we were in the shade, and to proceed down the middle, or to pass from one point to another, exposed to the heat of a burning sun, we covered our canoe, for about a quarter of its length, with a cloth supported by two hoops. In less than three quarters of an hour, all our dispositions were made to continue our voyage by water. We were, however, obliged to defer our departure until afternoon, to wait for a supply of bread, which there is a chance of being in want of in the voyage, because the inhabitants who live here and there on the sides of the river, are frequently badly supplied. It is therefore necessary to be provided before setting off, and to procure a fresh supply at the small towns in the passage.

We quitted Wheeling at five o'clock in the evening. We went twelve miles that night, and stopped for repose on the right bank of the Ohio, which constitutes the boundary of the government, known by the name of the north-west territory of the Ohio, and which is now admitted into the union, under the denomination of the state of the Ohio. Although we had only proceeded twelve miles, we found ourselves greatly fatigued, not so much with *paddling* continually, as from keeping constantly seated with our legs stretched out. Our canoe being very narrow at the bottom, we were compelled to remain in this position: the least motion would have exposed us to be overturned. However, in a few days, habit got the better of the inconvenience, and we afterwards proceeded commodiously, and at our ease.

We were three days and a half in reaching Marietta, a hundred miles from Wheeling. On the second day, we went thirty miles, on the third, forty, and, in the morning of the fourth day, we arrived at this little town, situated at the mouth of the great Muskingum. The first day, being entirely occupied with this mode of travelling, altogether new to us, and which did not appear to me to be very secure, my attention was not directed to any other object: on the following day, being more habituated to this kind of navigation, I observed the appearance of the sides of this magnificent river, from our canoe, with more tranquillity.

On quitting Pittsburgh,* the Ohio runs between two ridges, or high hills, nearly of equal elevation, which we judged to be from a hundred and fifty to two hundred toises. They frequently appear undulated at their summits; at other times, on the contrary, they seem to be perfectly level. These hills continue unbroken for one or several miles, then a small interval is observed, which sometimes admits of the passage of the rivers which fall into the Ohio; but most generally, another hill takes its rise at a very small distance from the spot where the preceding one terminated. These hills are prolonged, in this manner, for a space of nearly three hundred miles, and from our canoe we could observe them more or less distinctly, as they were nearer to or farther from the sides of the river. Their direction is parallel to the chain of the Allegany mountains, and although they are sometimes from forty to a hundred miles distant from them, and this for an extent of one or two hundred miles, we cannot help considering them as having a connection with these mountains. All that part of Virginia lying on the left bank of the Ohio is excessively mountainous, covered with forests, and almost uninhabited; at least, so I was informed by the inhabitants of the banks of the Ohio, who, every winter, go into these deserts to hunt bears.

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* This appears to have been an oversight in the author, who did not embark on the Ohio till his arrival at Wheeling, which is probably the place intended.—T.

The name of *rivers-bottoms*, or *flat-bottoms*, is given to those low lands, covered with wood, lying between the foot of these hills and the sides of the river, and which are sometimes five or six miles broad. The greater part of the large and small rivers running into the Ohio have also rivers-bottoms, which, as well as those of that river, are of easy culture; but nothing equals the fertility of the sides of the Ohio. The soil is a true vegetable earth, produced by the thick bed of leaves which are annually collected on the ground, and soon converted into mould by the humidity prevalent in these sequestered forests: but a considerable addition to the thickness of these successive beds of vegetable earth arises from the trunks of the enormous trees destroyed by age, with whose stumps the surface of the soil is every where loaded, and which decay very rapidly. In more than a thousand places of the territory I have passed over, at different periods, in North America, I do not recollect to have seen one which can be compared to this in the vegetative power of its forests. The best lands in Kentucky, and in that part of Tennessee, situated beyond Cumberland Mountains, yield very abundant harvests, but there the trees do not attain a bulk or an elevation comparable to those on the banks of the Ohio. Thirty-six miles before reaching Marietta, we stopped with a person who lives on the right bank: at about fifty paces from his house he showed us a plane-tree, *platanus occidentalis*, of which the trunk was swelled to a prodigious size at a height of two feet: we measured it four feet above the surface of the ground, and found it to be forty-seven feet in circumference. It appeared to keep the same dimensions to the height of fifteen or twenty feet, then it divided into several branches of a proportional thickness. No external appearance led to a belief that the tree was hollow, and I examined this as much as I could by striking it with a large stick in several places. Our host offered, if we would pass the day with him, to show us others as large in different parts of the wood, two or three miles from the river. This fact supports an observation made by my father, when he travelled this country, tending to prove that the tulip and plane-trees, of all the trees of North America, are those which attain to the greatest diameter.

He says: "Fifteen miles above the river Muskingum, in a small island of the Ohio, is a plane-tree, *platanus occidentalis*, the circumference of which, at five feet from the earth, where the stem is uniform, is forty feet four inches, which is about thirteen feet in diameter. Twenty years before my journey, General Washington had measured the same tree, and found it nearly of the same dimensions. I have also measured plane-trees in Kentucky, but never found them exceed fifteen or sixteen feet in circumference. This tree grows in humid places.

"Next to the plane, the largest tree of North America is the tulip-tree, *liriodendron tulipifera* (called by the Americans of the western country, *poplar*). Its circumference is sometimes fifteen, sixteen, and even eighteen feet. Kentucky is the native place of the tulip-trees; between Beard Town and Louisville there are parts of the woods which are exclusively composed of them. The land is argillaceous, fresh, and humid, but never flooded."

The trees chiefly met with in the forests bordering on the Ohio are, the plane, the tulip, the beech, the *magnolia acuminata*, the *celtis occidentalis*, the *acacia*, the sugar-maple, the red-maple, the *populus nigra*, and several species of walnuts. The most common shrubs are, the *annona triloba*, the *evonymus latifolius*, and the *laurus benzoin*.

CHAP. X.

Marietta.—Ship-Yards.—Indian Fortifications. Departure for Gallipoli.—Meeting with a Kentucky Boat.—Point Pleasant.—Great Kenhaway.

MARIETTA the chief place of the establishments of the new continent, in the state of the Ohio, is situated on the left bank of the great Muskingum, at its influx into the Ohio. This town, which did not exist fifteen years ago, already consists of upwards of two hundred houses; some of them are built of brick, but the generality are only of planks. There are a considerable number of two or three stories and very elegantly constructed. Almost all of them front the Ohio. The hills, which from Pittsburgh are near the river, are at some distance from its edges at Marietta, and leave a considerable extent of level ground, which will facilitate the aggrandizement of this town, on a regular plan, in every direction, and will allow its inhabitants to chuse the most advantageous and most agreeable situations: it will not experience the same inconvenience as Pittsburgh, which is already straitened by the hills around it.

The inhabitants of Marietta were the first who conceived the idea of exporting the products of the country directly to the Antilles, by a vessel constructed in their town, which they sent to Jamaica. The success which crowned this first attempt produced such an emulation among the inhabitants of this part of the western country, that new vessels were launched at Pittsburgh and Louisville, and sent immediately to the West Indies, or to New York and Philadelphia. The dock-yard at Marietta is situated near the town, on the great Muskingum. While I was there, there were three brigs on the stocks, one of which was of the burthen of two hundred and twenty tons. The works were under the direction of master-builders from Boston.

The river Muskingum takes its rise near lake Erie; it is navigable only two hundred and fifty miles above its influx into the Ohio, where it is a hundred and sixty toises broad. The country through which it runs, and especially its banks, is fertile. There are plantations as far as a hundred miles above Marietta.

Near this town are to be seen the remains of ancient earth-works, supposed to have been formerly used as fortifications by the Indians. At the time of their discovery, trees were growing on them of the same nature as those of the neighbouring forests, some of which were upwards of three feet in diameter. These trees have been felled, and the land is now nearly all cultivated with maize.

Major-general S. Hart, with whose son I was acquainted at Marietta, gave a plan and very minute description of these ancient works of the Indians, in the *Colum-*

bian Magazine for the year 1787. Vol. I. No. 9. a translation of which is to be found in *Voyage dans la Haute Pensylvanie.* This officer, whose merit was very eminent, perished in the famous battle lost by General Saint-Clair in 1791, near lake Erie, against the combined savages. At the time of my being at Marietta, General Saint-Clair was governor of the state of the Ohio, a situation which he has held from the admission of the state into the union. In his journey from Pittsburgh to Chillicothe, his excellency stopped at the tavern where I lodged; but as he travelled in an old chaise and without a servant, he did not at first attract my attention. In the United States, the men who are called by the wishes of their fellow-citizens to exercise these important functions, do not, in any respect change their manners; they continue to reside in their own houses, and to live as simple individuals, without showing more ostentation or entering into greater expense. The emoluments attached to this office vary in each state: South Carolina, one of the richest states of the union, gives its governor 4,280 piasters, while the governor of Kentucky does not receive more than 12 or 1500. The inhabitants of the state of the Ohio are divided in opinion on the political conduct of General Saint-Clair. With respect to talents, he has the reputation of being a better civilian than soldier.

The evening before my departure from Marietta I met with a Frenchman who is established on the banks of the great Muskingum, eighteen miles above the town. I regretted exceedingly that I was unable to accept his invitation to visit him at his plantation, which would also have enabled me to make more extensive observations on this part of the western country.

On the 21st of July we left Marietta for Gallipoli which is distant one hundred miles. We did not reach it until after a navigation of four days. The inhabitants of the country, suffering their boats to drive all night, would have made this passage in three days, or even in two and a half. According to the estimate we formed, the main force of the current is about a mile and a half an hour: it is scarcely perceptible in places where the water is very deep, but on approaching the islands, which, as I have already said, are very numerous, the bed of the river diminishes in depth, so that frequently there is not a foot of water out of the channel. Near these shoals the rapidity of the current becomes extreme, and the canoe is hurried forward like an arrow; and it is only at a distance from these islands that the depth of the river is augmented, and the current less rapid.

Towards evening on the day of our departure we joined a *Kentucky Boat*, destined for Cincinnati. This boat, forty feet long, by fifteen in breadth, was loaded with bar-iron and caldrons of yellow copper. It also contained a family of emigrants, consisting of the father, mother, and seven children, carrying with them their furniture, and their implements of husbandry. The conductors, who were three in number, made no difficulty of permitting us to fasten our canoe to their boat, and to pass the night with them. We purposed by this to accelerate our progress, by not stopping for the night, as we had been accustomed to do, and hoped for a quieter rest than we had yet experienced, owing to our being cruelly tormented with the fleas, with which most of the houses we had slept at, from the time of our embarkment, were filled. But our hopes were disappointed, for instead of being more comfortable, we were much more inconvenienced. During my whole journey it was only on the banks of the Ohio that I met with this molestation.

We were upon the point of separating at two o'clock in the morning, when the boat ran aground. In this situation we could not leave our hosts, who had treated us with the greatest civility, and cordially shared with us a wild turkey they had killed the night before by the river side. We got into the water with the conductors, and, by means of large sticks which we used as levers, succeeded in getting the boat afloat again, after two hours of fatiguing exertion.

During the night we passed the mouth of the Little Kenhaway, which, after having watered this part of Virginia, falls into the Ohio, on its left bank. Its sides are not inhabited more than fifteen or eighteen miles above its efflux: the rest of the country is so mountainous that it will be long before any establishments take place there. Five miles above the mouth of this river, and on the right bank of the Ohio is situated Bellepree, where, as yet, there are not more than a dozen houses; but the establishments formed in its neighbourhood increase rapidly. We received this intelligence at a house where we stopped after quitting the Kentucky boat.

On the 23d of July, about ten o'clock in the morning, we discovered Point Pleasant, situated a little above the mouth of the Great Kenhaway, at the extremity of the point formed by the left bank of this river, which stretches in a right line into the middle of the Ohio. This situation is the more delightful, because, for four or five miles above it, the Ohio preserves its breadth, which is about four hundred toises, through all that extent, and exhibits the most perfect alignment on each side. Its shelving banks, rising from five-and-twenty to forty feet, as in the rest of its course, are planted at the bottom with willows, the pendant branches of which, and the clear green of their foliage form a very pleasing contrast with the sugar-maples, red maples, and ash-trees, situated immediately above them; and these, in their turn, are overtopped by the plane, the tulip-tree, the beech, and the magnolia, which occupy the highest elevation; the large branches of these, attracted by the brighter light, and the more easy expansion, incline towards the sides, covering the trees situated below them entirely, and even stretching much farther over the river. This natural disposition, which prevails on both banks of the river, forms a regular sweep on each side, the image of which, reflected by the crystal of the water, embellishes this magnificent prospect.

The view of the Ohio, at Marietta, is nearly similar, perhaps it is more picturesque, from the introduction of the houses of this little town, which may be seen from a distance of five or six miles, and are immediately in front of the middle of the river, going upwards.

The Great Kenhaway, better known in the country by this name than by that of the *New River*, given to it in some maps, takes its rise at the foot of the Yellow Mountain in Tennessee; but the aggregate of its waters runs into it from the Allegany mountains. The falls and *rapids*, which are very frequent on this river, in a course of four hundred miles, will be long an obstacle to the exportation of the produce of that part of Virginia which it waters, by the Ohio and Mississippi. Its banks are inhabited, but more thinly than those of the Ohio.

CHAP. XI.

Gallipoli.—State of the French Colony of Scioto.—Alexandria, at the Mouth of the Great Scioto.—Arrival at Limestone, in Kentucky.

FOUR miles lower than Point Pleasant, on the right bank of the Ohio is situated Gallipoli. This is the place at which about a fourth part of the French, who in 1789 and 1790, quitted their country to establish themselves at Scioto, were collected: but it was not until after a residence of fifteen months at Alexandria in Virginia, where they waited for the termination of the war with the savages, that they were enabled to take possession of the lands for which they had paid so dearly. They were also on the point of being dispossessed of them, in consequence of the differences which arose between the Scioto Company and that of the Ohio, from whom the first had originally purchased these lands. Scarcely were they arrived at the territory destined for them, when a new war broke out between the Americans and the Indians, and completed the distresses of these unfortunate colonists. There can be no doubt but that, alone, and without support, in the midst of these forests, they would all have been massacred, had it not been for that species of predilection which all the Indian nations bordering on Canada and Louisiana have for the French: hence while they did not take an active part in the war, they were unmolested; but the American army having obtained a considerable advantage near the mouth of the Great Kenhaway, and crossed the Ohio, the inhabitants of Gallipoli joined them. From that time, they were no longer spared, and were constrained to keep within their village. Of two of them, who had gone about two gun-shots from it, one was killed, and scalped, the other was taken prisoner, and conducted to a very great distance into the interior. Intelligence was received from him, when I was at Gallipoli: he obtained a very good livelihood by mending fire-arms, and by following his trade of a goldsmith, in the Indian village where he resided, and did not express any desire to return to his countrymen.

The war being terminated, the congress, to indemnify these unfortunate Frenchmen for the successive losses they had sustained, gave them twenty thousand acres of land, lying between the small rivers Sandy and Scioto, seventy-five miles lower than Gallipoli. These twenty thousand acres were divided in the proportion of two hundred and ten acres to each head of a family. Those among them who did not feel sufficient strength or courage to venture a second time, with no other support but that of their children, to insulate themselves in the midst of woods, to fell, to burn, and partly to eradicate by the roots, trees which are frequently upwards of four feet in diameter, and afterwards to cleave a part of them to enclose their fields, sold their lots to Americans, or to more enterprizing Frenchmen: only thirty families established themselves on their new estates. In the three or four years which they have lived there, they have succeeded, by great exertions, in making tolerable settlements, where, assisted by the very great fertility of the soil, they have an abundance of provisions of the first necessity: at least, so it appeared to me on passing this spot.

Gallipoli, built on the bank of the Ohio, consists of about seventy log-houses, more than the half of which are uninhabited, and falling into ruins. The others are still occupied by Frenchmen, who live miserably: only two among them seem to enjoy any degree of comfort. One keeps a tavern, and makes peach-brandy, which he sends to Kentucky, where it sells to great advantage. The second is M. Burau, from Paris, by whom I was very kindly received, though I was unknown to him. Nothing exceeds the activity of this Frenchman, the nature of whose commerce obliges him to be continually travelling the country bordering on the Ohio, and, once or twice in a year, to make a journey of four or five hundred miles through the woods, to the towns situated beyond the Allegany mountains. I learnt from him that the intermitting fevers, which, at their first arrival, added to the calamities of the inhabitants of Gallipoli, had not appeared there for three years. This did not prevent a dozen of them from going, very lately, to New Orleans, in search of a better fortune; but they almost all died of the yellow fever, the first year of their arrival.

Such was the situation of the Scioto establishments when I was at Gallipoli. If they did not succeed better, it is not because Frenchmen are less active or less industrious than Americans or Germans: it is because, of those who set out for the Scioto, not more than a tenth were calculated for the labour they had undertaken.

But it did not suit the speculators, who sold land at six livres (five shillings) an acre, which in America was not worth, at that time, twenty sous (ten pence), to inform those whom they induced to go and cultivate it, that during the first two years, they must have a hatchet in their hands for nine hours a day, and that a good wood-cutter with only his hands would sooner be comfortably settled on these fertile banks, which, however, must be first cleared, than him, who arriving there with two or three hundred pounds in his pocket, was unaccustomed to this kind of work. This cause, independently of the war with the savages, would have been sufficient to overwhelm the new colonists with misery, and to stifle the colony in its birth.

On the 25th of July, we left Gallipoli for Alexandria, which is a hundred and four miles from that place, and arrived there in three days and a half. The site intended for this town is at the mouth of the Great Scioto, and in the angle between the right bank of that river and the north-west bank of the Ohio. Although the plan of Alexandria has been arranged for several years, nobody comes to settle there, and the number of its houses does not yet exceed twenty, the greater part of which are log-houses. Nevertheless, its position is very favourable, on account of the numerous establishments already formed above this new town, on the Great Scioto; the banks of which are lower and more humid, and are said to be almost as fertile as those of the Ohio. The population would be much more considerable, were it not that the inhabitants are, every autumn, subject to very obstinate intermitting fevers, which do not cease until the approach of winter. This country is the most unhealthy of all those composing the extensive state of the Ohio. The seat of government of this new state is at Chillicothe: this town, which contains about a hundred and fifty houses, is situated sixty miles from the mouth of the Great Scioto. A newspaper is published here which appears once a week.

At Alexandria, and in the other small towns of the western country, which are situated on a very rich soil, the intervals between the houses are almost entirely covered with stramony. This dangerous and disagreeable smelling plant is propagated in a wonderful manner in every place where the land has been cleared and cultivated within twelve or fifteen years, and notwithstanding every endeavour of the inhabitants, it shoots up in larger quantity every year. It is believed to have appeared first at James Town in Virginia, whence it has received the name of *James's Weed.* Travellers cover the wounds, made on the backs of their horses by the pressure of the saddle, with its leaves.

The mullein was the second European plant which I met with, in abundance, in the United States, although in a smaller proportion than the stramony. It is extremely common on the road leading from Philadelphia to Lancaster, but less plentiful after passing this town, and, beyond the Allegany mountains, I did not see any.

On the 1st of August we arrived at Limestone in Kentucky, 50 miles below Alexandria; here my voyage on the Ohio terminated. We had come 348 miles in a canoe, from Wheeling, and were ten days in accomplishing it, during which time we were obliged to paddle without ceasing on account of the slowness of the current. This work, always fatiguing when continued long by persons unaccustomed to it, was still more so to us on account of the great heat. We suffered also greatly from thirst, not being able to quench it, but by coming ashore at the plantations by the river side; for, during the summer, the waters of the Ohio, acquire such a degree of heat, that they are not drinkable until they have been kept four-and-twenty hours in the shade. This excessive heat is caused on the one hand, by that of the climate, at this season, and on the other, by the slowness of the current.

I had fixed on the 1st of October for my return to Charlestown, in South Carolina, and had still near 1000 miles to travel before reaching it, if I executed the plan which I had formed of passing through the state of Tennessee, which would lengthen the road greatly. Being thus pressed for time I abandoned my intention of descending the Ohio as far as the *rapids*, and parted from Mr. Samuel Craft, who pursued his voyage alone in the canoe to Louisville, from whence, after having descended the Ohio and the Mississippi, he was to proceed up the Yazous, to the Natches, and afterwards to return by land to the state of Vermont, which he hoped to reach by the 15th of November following, after having made a tour of near 4000 miles in six months.

CHAP. XII.

Fish and Shells of the Ohio.—Inhabitants of the Sides of this River.—Agriculture.—American Emigrant.—Commercial Relations of this Part of the United States.

THE banks of the Ohio, although from twenty to sixty feet in height, scarcely afford any stoney substances below Pittsburgh, with the exception of some large detached stones, of a grey colour, and soft, which are observed in a space of ten or twelve miles below Wheeling, the remainder appears to be entirely vegetable earth. A few miles above Limestone we began to observe a bank of calcareous stone, the great thickness of which did not allow us to doubt that it was of considerable extent.

Two species of flints, rounded, and of a middling size, are very abundant in the bed of the Ohio, particularly at the upper end of the islands, where they are accumulated by the strength of the current. Those of one species are of a dark colour, and break easily; the others, which are smaller and not so plentiful, are of a white quartz and semi-transparent.

In the Ohio, as well as in the Allegany, the Monongahela, and the other rivers of the west, there is found an abundance of a species of muscle, from two to five inches in length; it is not eaten, but the mother-of-pearl which is very thick, is employed to make sleeve-buttons. I have seen some of them at Lexington, which were as beautiful as those made of the mother-of-pearl used in Europe. This new species, which I have brought with me, has been named by Citizen Rose, the *Unio Ohiotensis.*

The Ohio abounds with fish of different species. The most common is the cat-fish, *Silurus Felis.* These are caught with a hand-line; and in this manner they are sometimes taken of the weight of a hundred pounds. The first ray of the back fin of this fish is formed by a very strong and sharp spine, which he makes use of to kill others of a smaller size. He sinks some inches below the fish he means to attack, then rising suddenly, wounds it several times in the belly: we had opportunities of observing this twice in the course of our navigation. This fish is also taken with a light, by spearing it with a long stick, provided with an iron point, on its approaching the vessel in which it is carried.

Until 1796 and 1797, the banks of the Ohio were so thinly peopled that there were not more than twenty-five or thirty families in a space of four hundred miles, but since that time, emigrants, who have come for the most part from the mountainous districts of Pennsylvania and Virginia, have flocked, in great numbers, to those fertile banks; and the plantations have increased so much, that, at present, they are not more than from one to three miles asunder, and some of them were always within sight from the middle of the river.

The inhabitants of the banks of the

Ohio employ the greatest part of their time in hunting the stag and the bear, the skins of which they sell. The fondness they have contracted for this kind of life is injurious to the cultivation of their lands, and, for the same reason, they do not perceptibly improve their new acquisitions, which, in general, consist of from one to four hundred acres, not more than eight or ten of which are cleared. Nevertheless, the produce of it, with the milk of their cows, furnishes an abundant subsistence for them and their families, which are always very numerous, for there are few with less than six or seven children. The houses which they inhabit are built on the banks of the river, almost always in agreeable spots, from whence they can enjoy the most charming views; but their construction is far from corresponding with so beautiful a site; they are only miserable log-houses, without windows, and so small that two beds fill a great part of them. Two men, however, can erect and complete one of these buildings, in less than three days, which, from their smallness and wretched appearance, seem to belong to a country in which wood is procured with the greatest difficulty, rather than to a territory covered with forests.

The inhabitants of this country receive travellers who seek their hospitality, without difficulty; they shelter them, that is to say, they permit them to sleep on the floor wrapped in their blankets. They always have maize bread, smoked hams, milk, and butter, but seldom any thing else, consequently the expenses of food are not great in this part of the United States or, generally, in the western country.

The culture of maize is nearly the only one which they follow, and although it is far from being brought to perfection, and the land is still full of roots, it is nevertheless so fertile, that the stems rise ten or twelve feet, and the annual produce is from twenty-five to thirty quintals per acre. During the three first years which succeed the clearing, wheat grows too rank, and sheds its seed without forming an ear, so that it cannot be sowed until the end of four or five years, by which time the earth is freed from the greatest part of the stumps and roots which remained in it at an earlier period. The Americans of the interior cultivate wheat, rather as a speculation, to send its flour to the sea-ports, than for their own consumption, for nine-tenths of them use only maize-bread; they make it into loaves of eight or ten pounds weight, which they bake in cottage ovens; or into small cakes, baked on a plank before the fire. This bread is generally eaten hot, and is not much relished by those who are unaccustomed to it.

The peach is the only fruit tree yet cultivated in this country. It requires no attention, but shoots with such vigour as to bear in the third year.

The price of the best land on the banks of the Ohio does not, at present, exceed three piasters an acre: it is still cheaper on the left bank, in the states of Virginia and Kentucky, where the titles of the proprietors are not thought to be so good.

The sides of the Ohio, as well as of those rivers which fall into it, not having been inhabited, as it may be said, for more than eight or nine years, the Americans who have settled there have not yet much share in the commerce carried on by the Mississippi; which, at this time, consists of hams and pieces of smoked pork, brandy from grain and peaches, barrelled butter, hemp, skins, and some flour. They also send cattle to the Atlantic states. Little merchants, who supply themselves at Pittsburgh and Wheeling, and pass up and down the river in canoes, bring them small wares, and particularly tea and coffee, and take some of their produce in return.

More than half of those who inhabit the banks of the Ohio are also the first inhabitants, or, as they are called in the United States, *first settlers*, a kind of men who are unable to stop on the soil which they have cleared, and, under pretence of finding better land, a more healthy country, or a greater abundance of beasts of chace, keep always moving farther, constantly direct their steps to the points most remote from every part of the American population, and establish themselves in the vicinity of the nations of the savages, whom they brave even in their own country. The bad conduct which they use to them creates perpetual quarrels, and frequently leads to bloody wars, which are always terminated by these people being made the victims, more because of the smallness of their number, than their want of courage.

Before we arrived at Marietta, we fell in with one of these *settlers*, an inhabitant of the neighbourhood of Wheeling, who, like us, was descending the Ohio, and we kept together for two days. Alone, in a canoe of eighteen or twenty feet long, and twelve or fifteen inches wide, he was going to visit the banks of the Missouri,* at a hundred and fifty miles from its mouth. The excellent quality of the land, which is reported to be more fertile than the banks of the Ohio, and which the Spanish government, at that time, distributed *gratis*; the multitude of beavers, elks, and, more particularly, of bisons, were the motives which induced him to emigrate into these distant countries; from whence, when he had determined on a convenient spot to settle in with his family, he had to return, and seek them on the banks of the Ohio, which obliged him to make a voyage of fourteen or fifteen hundred miles, three times. His dress, like that of all the American hunters, consisted of a round waistcoat with sleeves, a pair of pantaloons, and a broad woollen girdle, of a red and yellow colour. A carbine, a *tomahawk*, a small hatchet used by the Indians to cut wood, and to complete the death of their enemies, two beaver traps, and a large knife hanging to his girdle, composed his hunting equipage. One blanket was all his baggage. Every evening he encamped on the banks of the river, or passed the night by a fire, and when he judged the spot to be favourable to the chase, he penetrated into the woods for several days; and, from the produce of his hunting, procured the means of subsistence, and obtained fresh supplies with the skins of the animals he had killed.

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* The banks of this river are already inhabited by the Americans as far as forty miles from its influx into the Mississippi. The number of those already established there is estimated at three thousand, and it is continually increasing by the successive emigrations which take place from Kentucky and the Upper Carolinas.

Such were the first inhabitants of Kentucky and Tennessee, of whom very few are now left. It was them who began to clear these fertile countries, and wrested them from the savages, who obstinately disputed the possession of them; it was them who finally secured the property in them, after five or six years of bloody war: but long habituated to a wandering and unemployed life, they were unable to enjoy the fruits of their toil, or to benefit by the extraordinary value to which they had raised these lands in a short time, they have emigrated into more remote countries, where they are forming new establishments. It will be the same with the greater part of those who now inhabit the banks of the Ohio. The same disposition which brought them there will cause them to emigrate from thence. To these, new emigrants will succeed, coming also from the Atlantic states, who will abandon their possessions to seek a milder temperature, and a more fertile soil. The price which they will obtain for them will be enough to pay for their new acquisitions, the peaceable enjoyment of which will be secured by a numerous population. These last comers, instead of log-houses, with which the present possessors are content, will build houses of planks; they will clear a greater quantity of the land, and will be as active and persevering in improving their new possessions, as the first were in following their passion for the chase. To the culture of maize, they will add that of wheat, tobacco, and hemp. Rich pastures will feed numerous flocks, and an advantageous market for all the products of the country will be secured to them by the Ohio.

The position of this river, the most happy which can be found in the United States, will cause it to be considered as the centre of activity of the commerce between the eastern and western states: it is by it that the latter receive the manufactured articles furnished to the first by Europe, India, and the Antilles; and it is the only channel of communication open with the ocean, for exporting the produce of that vast and fertile part of the United States, comprized between the Allegany mountains, the lakes, and the left bank of the Mississippi.

All these advantages, added to the salubrity of the climate, and the beauty of its situations; enlivened, in the spring, by crouds of loaded boats, hurried on with incredible rapidity by the current, and by the extraordinary spectacle of vessels of heavy burthen, which proceed directly from the middle of this vast continent to the West Indies: all these advantages, I say, make me look to the banks of the Ohio, from Pittsburgh to Louisville, both included, as being likely to be, within twenty years, the most populous and most commercial part of the United States. It is also that to which I should not hesitate to give the preference, in chusing my place of residence.

CHAP. XIII.

Limestone.—Road from Limestone to Lexington.—Washington.—Salt works of Mays-Lick.—Millesburgh.—Paris.

LIMESTONE, situated on the left bank of the Ohio, consists of not more than thirty or forty houses, built of planks. This small town, which has been begun upwards of fifteen years, ought, in my opinion, to have acquired a large extent. It has long been the landing place of all the emigrants from the Northern States who came by the way of Pittsburgh, and is still the receptacle of all the merchandize sent from Philadelphia and Baltimore to Kentucky.

Travellers who come to Limestone by the Ohio will find it very difficult to hire horses to proceed further. They are very rarely to be obtained without buying, and the inhabitants know as well as those of Shippensburgh, how to take advantage when they can. As I purposed remaining some time at Lexington, and should consequently have an opportunity of making a less disadvantageous purchase, I determined to go thither on foot; I therefore left my portmanteau with the master of the tavern where I stopped, who, for a piaster, undertook to forward it to me at Lexington, and I set out the same day. It is reckoned sixty-five miles from Limestone to Lexington, where I arrived in two days and a half. The first town I came to was Washington, which is only four miles distant. It is larger than Limestone; it contains about two hunded houses, all of planks, and built on both sides of the road. Commerce is very brisk here; it consists principally of flour, which is exported to New Orleans. There are very beautiful plantations in its environs, the fields of which are as well cultivated, and the fences as well kept, as in Virginia and Pennsylvania. I went seven miles the first evening, and next day proceeded to Springfield, consisting of five or six houses, of which two are spacious well-built taverns, where the neighbouring inhabitants meet. From thence I passed through Mays-Lick, where there is a salt work. I stopped to examine the process followed in this country in the extraction of the salt. The pits which supply the salt water are about twenty feet deep, and not more than fifty or sixty toises from the river *Salt Lick*, the water of which is slightly brackish in the summer. For the evaporation, they make use of caldrons of yellow copper, containing about two hundred pints, and similar in their form to those which are employed in France in making the lixivium. They place ten or twelve in a row, on a trench, four feet in depth, and of a breadth proportionate to their diameter, so that their sides rest on the edges of the trench; and they are supported by a few handfuls of clay, which fills the intervals between the caldrons but very imperfectly. The wood, which is cut into billets of about three feet long, is put in at one of the ends of the trench. This kind of furnace is far from economical, and consumes a prodigious quantity of wood. I made the observation to the people employed in this process: they replied that they were not ignorant that better methods existed, but that they should nevertheless follow their own until some of the people of the *old country* (so they call the Europeans) should come and teach them better. The high price of labour for cutting and carrying the wood, and the small quantity of saline principles which the water holds in solution, are the occasions of the salt being always very dear; it is sold for about four piasters the quintal. This high price induces a great number of people to look for salt springs; they are generally found in places designated by the name of *licks*, where the bisons, elks, and stags, which existed in Kentucky before the arrival of the Europeans, went, by hundreds, to *lick* the saline moleculæ with which the soil is impregnated. There are, in this state, as well as in that of Tennessee, some of those impostors who, by means of a hazel wand, pretend to discover the springs of salt, and of fresh water; but they are never consulted except by the worst informed among the people of the country, and even these do not apply to them unless when some circumstance has determined them to examine a spot of land which they suppose contains one of these springs.

The country, for ten miles before I reached Mays-Lick, and eight miles after I left it, did not present me with a single plantation. The soil is dry and arid; the road is covered with large, flat, calcareous stones, of a blue colour internally, and with their edges rounded. The only trees I observed were the white oak, *quercus alba*, and a walnut, *juglans hickory*, the shortness of which, with their stinted appearance, were sufficient indications of the sterility of the soil, occasioned, no doubt, by the salt mines which it contains.

From Mays-Lick I proceeded to Millesburgh, consisting of fifty houses; there I paid a visit to M. Savary, who had been very particularly acquainted with my father; and, on his invitation, I quitted my inn, and went to lodge with him. M. Savary is one of the principal landholders of this country; he possesses more than eighty thousand acres, as well in Virginia as in Kentucky and Tennessee. The taxes which he pays, though moderate, are nevertheless burthensome to him, since, at present, he finds great difficulty in selling his land; because the emigrations from the eastern states, having taken another direction, they have now but little effect on Kentucky.

Near Millesburgh runs a small river, five or six toises in breadth, on which are established two saw-mills. The water was at this time so low that I crossed it on large calcareous stones, which, in part, formed the bottom, and were then above the water. In the winter, on the contrary, it is swelled so much that it can only be passed on a bridge upwards of five-and-tewnty feet in height. The bridges thrown over the small rivers, *creeks*, which are frequently met with in the interior of the country, particularly in the eastern states, are all made with trunks of trees, not secured, and placed transversely by the side of each other. The repairs of these bridges are not attended to, and, when travelling on horseback, it is always prudent to alight on crossing them.

Before reaching Lexington, I passed through Paris, the chief place of the county of Bourbon. This small town, which, in 1796, consisted of only eighteen houses, has at present upwards of an hundred and fifty, more than half of which are built of brick. It is situated in the midst of an agreeable plain, of considerable extent, and watered by a small river, on which are several corn-mills. Every thing here announces the affluence of the inhabitants. Seven or eight of them were drinking whiskey in a very neat tavern, where I stopped to let the great heat pass over. After answering the various questions they asked me relative to the intentions of my journey, one of them invited me to dine with him, being desirous of making me acquainted with one of my countrymen, who had lately arrived from Bengal. I yielded to his request, and found a Frenchman, who had quitted Calcutta to come and live in Kentucky. He had taken up his residence at Paris, where he exercised the profession of a schoolmaster.

CHAP. XIV.

Lexington.—Manufactures established there. —Commerce.—Money.—Dr. S. Brown.

LEXINGTON, the chief place of the county of La Fayette, is situated in the middle of a spot of cleared land, of about three hundred acres, surrounded with woods, like all the other little towns of the United States, which are not by the sea-side. This town is built on a regular plan, and its streets, which are broad, intersect each other at right angles. The want of foot-ways, renders them very muddy in winter, and also when it rains. The houses, which are mostly brick, are dispersed over an extent of eighty or an hundred acres, with the exception of the *main street*, where they are contiguous to each other. This town founded in 1780, is the oldest and most considerable in the three new states; it contains about 3,000 inhabitants. Francfort, the seat of the government of Kentucky, which is four and twenty miles distant, is less populous. The rapid increase of Lexington may be attributed to its position in the centre of one of the most fertile parts of the country, lying within a sort of semicircle, formed here by the river Kentucky.

There are two printing-offices at Lexington; a news-paper is published by each of them, which appears twice a week. A part of the paper is fabricated in the country: it is about one third dearer than in France. That made use of for writing, originally from England, comes to them from Philadelphia and Baltimore. Two good rope-works, always employed, furnish the ships built on the Ohio. On the sides of a small river which runs near the town, several tanneries are established, which supply the wants of the inhabitants. At the door of one of these tanneries I saw some strong hides, of a yellow colour, tanned with the quercitron oak, which convinced me that this tree grows in Kentucky, although I had not observed any between Limestone and Lexington; it is true, I had only seen either very arid soils, or those which are extremely fertile, and this tree does not grow in either, as I have since observed. It thrives most in mountainous districts, where the land is gravelly and a little humid.

The deficiency of hands stimulates the industry of the inhabitants of this country. While I was at Lexington, one of them had just obtained a patent for a new nail-machine, more perfect and more expeditious than that used in the prisons of New York and Philadelphia, and, another had announced one for grinding and cleansing hemp, and sawing wood and stones. According to its inventor, this machine, which is moved by a horse, or by a current of water, is capable of breaking and clearing eight thousand weight of hemp per day.

The manufactures of Lexington are supported, and their proprietors are thought to be doing very well, notwithstanding the extreme high price of labour. This price is occasioned by the inhabitants giving the preference to agriculture, and there being but few who put their children to trades, because they require their assistance in their own employments. The following comparison will render this defect of artisans in the western country, more perceptible. At Charlestown in Carolina, and at Savannah in Georgia, a white workman, such as a joiner, carpenter, mason, white-smith, taylor, shoemaker, &c. earns two piasters a day, and cannot live a week for less than six. At New York and Philadelphia he receives only one piaster, and it costs him four per week. At Marietta, Lexington, and Nashville in Tennessee, this workman receives a piaster, or a piaster and a half per day, and can live a week upon one day's wages. Another instance will also assist in giving an idea of the low price of provisions of the first necessity in the western states: the boarding-house at which I lived during my residence at Lexington, is reckoned one of the best in the town, and the table is very well supplied for two piasters per week. It is said that living is as cheap in the New England states, which include Connecticut, Massachusets, and New Hampshire; but the price of labour is lower there, and consequently more proportionate to that of provisions.

Independently of those manufactures which are established at Lexington, there are also, in the country, some potteries of common ware, and one or two powder-mills, the produce of which is consumed in the country, and exported, but in small quantity, to the Upper Carolinas, or to Lower Louisiana. The sulphur is obtained from Philadelphia, and the saltpetre is fabricated in the country. The earths which yield the lixivia are obtained from the grottos and caverns, found on the declivities of high hills, in the most mountainous parts of this state. They are very rich in the nitrous principles, which is evidently owing to the calcareous rock, from the decay of which all these excavations are formed, as well as to the vegetable substances which are accidentally driven into them. This seems to show that the assimilation of animal matters is not absolutely necessary to produce a greater degree of nitrification, even in the formation of artificial nitre-beds. The rough saltpetre is sold for the eighth part of a piaster per pound. In the different specimens which I saw, I did not observe any indication of marine salt. The processes which are followed in these works are quite as defective as those of the fabrication of salt. I only speak of the extraction of the saltpetre, not having seen the powder-mills. I shall conclude by observing, that it is only in Kentucky and Tennessee that saltpetre is fabricated, and that this is not done in the Atlantic states.

The merchants of Lexington carry on almost all the commerce of Kentucky: they receive their merchandize from Philadelphia and Baltimore in thirty-five or forty days, including two days and a half for the carriage from Limestone, where all goods destined for Kentucky are disembarked. The total cost of the carriage is seven or eight piasters per quintal. Seven-tenths of the fabricated articles consumed in Kentucky, as well as in the rest of the United States, are imported from England. They consist principally of coarse and fine iron goods; next to these, cutlery, nails, and tin-wares; and finally, drapery, mercery, drugs, and fine pottery. Muslins, nankeen, tea, &c. are imported directly from India, in American vessels, and they obtain coffee and raw sugar of different qualities from the West Indies; for it is only the poorer class of the inhabitants who use the maple sugar.

The merchandize of France which reaches these countries, is reduced to some silk goods, such as taffeties, silk stockings, &c., brandy, and millstones, notwithstanding their great weight, and the distance from the seaports.

From Lexington, these different commodities are distributed into the interior of the state, and the surplus is sent, by land, to Tennessee. The merchants find no difficulty in obtaining large profits, for, on the one hand, they generally receive a year's credit from the commercial houses at Philadelphia and Baltimore; and, on the other, the smallness of their number enables them to turn the current price of the territorial produce, which they take in exchange for their goods, in their own favour: for, on account of the extreme scarcity of coin, the most of their transactions are conducted in the way of exchange. Nevertheless, the merchants employ every means to get into their own hands all the money in circulation; and, in some circumstances, such and such commodities are only sold for money, or exchanged for certain products, the sale of which is always sure, such as the linen of the country, or hemp. Payments in produce always make a difference of fifteen or twenty *per cent.* in favour of the merchant. All the money collected in commerce is sent by land, on horseback, to Philadelphia: I have seen fifteen or twenty horses set off together *.

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* The distance from Lexington to Philadelphia, through Pennsylvania, is about six hundred and fifty miles. Those who are brought here by their commercial concerns, generally take the journey in autumn, and are from twenty to four-and-twenty days in performing it.

The difficulty of conveyance occasions the notes of the bank of the United States to be in great request: they are changed for specie with a profit of two *per cent.* The merchants established in the most remote parts receive them without difficulty, but the country people will not take them, from a fear of forged ones. I may add, that there is not any species of territorial product in Kentucky, with the exception of *Ginseng*, the value of which will pay for its conveyance by land from this state to Philadelphia; for it is proved that twenty-five pounds weight would cost more for the carriage in this way, even with going up the Ohio, than a thousand weight, by way of the river, without reckoning the passage by sea; although there are frequent examples of the voyage from New Orleans to Philadelphia or New York being sometimes as long as that from France to the United States.

The current money in the states of Kentucky and Tennessee has the same divisions as in that of Virginia. The dollar or piaster is valued at six shillings. The *cents*, which correspond nearly with our *sous* (halfpence), although having a forced currency, do not appear in circulation. The quarters, eighths, and sixteenths of the piaster, form the small white money. As this is scarce, the deficiency is supplied by a very bad practice, but which appears to be necessary, that of cutting the piasters into pieces. Every body having a right to make this division, there are people who do it for the purpose of converting a small quantity of the metal to their own profit. Consequently, in retail trade, the vender will make an abatement for a round dollar or piaster much more willingly than for its value in quarters or eighths.

I have been told by well informed people, that, during the last war, flour having borne a very high rate at New Orleans, it was calculated that the exportations of it from Kentucky, balanced the price of the English importations they received from Philadelphia and Baltimore, by the Ohio: but that, since the peace, the demand for flour and salt provisions for the West Indies having ceased, wheat has fallen to a very low price; so that the balance of commerce was wholly against this state.

During my residence in Lexington, I frequently saw Dr. S. Brown, a Virginian, physician of the faculty of medicine at Edinburgh, and member of the Philosophical Society, several members of which had given me letters of recommendation to him. A well deserved reputation incontestably places Dr. Brown in the first rank of the physicians established over all the country. Receiving the scientific journals regularly from London, he is always in the track of new discoveries, and turns them to the advantage of his countrymen. It is to him they are indebted for the introduction of the cow-pock. He has already vaccinated upwards of a hundred and fifty people at Kentucky, while they are only making their first attempts at New York and Philadelphia. Dr. S. Brown is also employed in collecting the fossils, and other natural productions, which abound in this interesting country. He showed me several remains of very large unknown fishes, taken up in the river Kentucky, and which are remarkable for their singular forms. The analysis of the mineral waters of Mud-Lick, will employ his first leisure. These waters are sixty miles from Lexington: they are in great repute, and some of the most distinguished people of the country were using them when I was in this town. The Philosophical Transactions and the Monthly Review, published at New York, by Dr. Mitchill, are the periodical works in which Dr. Brown makes known the results of his observations and researches.

I had the pleasure of making an acquaintance with several Frenchmen, established in this country. Mr. Robert, to whom I was recommended by M. Marbois, junior, at that time in the United States; and Messrs. Duhamel and Mentelle, sons of members of the National Institute, of the same name. The two latter are established in the neighbourhood of Lexington, the first as a physician, and the second as a cultivator. I experienced from them those marks of attention and respect, so desirable to a stranger, at a distance from his country and his friends, and I think myself happy in this opportunity of testifying my gratitude.

CHAP. XV.

Departure from Lexington.—Culture of the Vine in Kentucky.—Passage of the Rivers Kentucky and Dick.—Departure for Nashville.—Mulder Hill.—Passage of the Green River.

I LEFT Lexington for Nashville, in the state of Tennessee, on the 10th of August; and as the establishment formed for naturalizing the vine in Kentucky was only a few miles out of my road, I determined to visit it. There is not any American who does not take a lively interest in every attempt of this kind; and several persons in the Atlantic states had spoken to me of the success which had crowned this enterprize. The wines of France being among the principal articles of our commerce with the United States, I wished to be satisfied on the degree of prosperity which this establishment might have acquired. But from the indifferent manner in which I had heard it spoken of in the country, I suspected before-hand, that the first trials had not been very successful.

At fourteen miles from Lexington, I quitted the road to Hickman's ferry; I turned to the left, and lost myself in the middle of the woods, so that I did not reach the vineyard until evening, where I was very politely received by M. Dufour, who directs the undertaking. He invited me to sleep there, and pass the following day with him, which I accepted.

There is a public spirit in the United States which causes them to seize with avidity every project tending to enrich the country by agriculture or commerce. That of acclimating the vine in Kentucky, was eagerly received. Several individuals formed themselves into a society to carry it into execution; and it was determined to raise a capital of ten thousand piasters, divided into two hundred shares, of fifty piasters each. This subscription was soon filled. M. Dufour, the principal of a small Swiss colony, who had established himself seven or eight years before in Kentucky, and was the proposer of this scheme, was employed to look for a suitable soil, to procure some plants, and to do every thing which he might judge necessary to insure success. The spot which he has selected and cleared is situated on the river Kentucky, twenty miles from Lexington. The soil is excellent, and the vines are planted on a small hill with a steep declivity, exposed to the south, and the base of which is two hundred toises from the river.

M. Dufour intended to pass into France to procure the vine plants, and with this view he went to New York; but the war, or some other cause with which I am unacquainted, prevented him, and he contented himself with procuring there, and at Philadelphia, plants of every species which he could obtain from individuals who had them in their gardens. He collected twenty-five species, which he brought to Kentucky, where he has endeavoured to multiply them. But his success is not equal to his attention: not more than four or five varieties are left, among which are those which he calls by the names of Burgundy and Madeira, and the first does not thrive well: the fruit always rots before it arrives at maturity. When I saw them, the bunches were few and stinted, the grapes small, and every thing appeared as though the vintage of the year 1802 would not be more abundant than those of the preceding years. The Madeira vines, on the contrary, seemed to give some hopes: of a hundred and fifty, or two hundred plants, about a third were loaded with very fine grapes. These vines do not occupy a space of more than six acres; they are planted and supported by props, as in the environs of Paris. The vicinity of the woods attracts a species of bird, which is very destructive among them, and the nature of the country is a great obstacle to getting freed from them.

Such was then the situation of this establishment, in which the proprietors took but a slight interest, and which was likely to meet with another hinderance in the division of M. Dufour's family, a part of which was on the point of quitting it to settle on the banks of the Ohio. These details are sufficient to give a very different idea of the state of the pretended flourishing vines of Kentucky, from that which may have been formed on the pompous accounts of them published some months ago in the public papers.

I took the opportunity of my residence with M. Dufour, to inquire of him, in what part of Kentucky the numerous emigration of his countrymen, of which so much was said in our newspapers in 1793 and 1794, had settled. He informed me, that a great number of Swiss had, indeed, had an intention of coming hither, but that at the time for setting off, the greater part of them had changed their opinion, and that the whole colony was reduced to his family and a few friends, in the whole, eleven persons.

I did not quit the vineyard until the

second day after my arrival. To shorten my road, M. Dufour offered to conduct me through the woods to Hickman's ferry, over the river Kentucky. I accepted his proposal, and although the distance was only four miles, we were two hours in reaching it, from being obliged to dismount, either to ascend or descend some very steep hills, or to enable our horses to leap over the trunks of rotten trees, lying heaped on each other. The soil, which is as fertile as in the environs of Lexington, will be more difficult to cultivate, on account of the great inequality of the land. Beeches, walnuts, and oaks with large acorns, form the principal mass of the forests. We, however, crossed parts of the beach, adjoining the river, which are, exclusively, covered with superb plane-trees. Some of the people of the country dread the vicinity of these trees; they believe that the down, with which the under side of the leaves is covered in the spring, and which falls off in the course of the summer, is a predisposing cause of consumption, by producing an irritation of the lungs, almost insensible, but continual.

At this season, the river Kentucky is so low at Hickman's Ferry that it may be forded.

I stopped for a short time at the tavern where the ferry-boat is kept when the water is high; and, while they were giving my horse some maize, I went to the edge of the river to observe it more at my ease. Its sides are formed by an enormous mass of calcareous stones, divided perpendicularly, a hundred and fifty feet in height, and which, from the top to the bottom, show evident traces of the action of the waters, which have worn them away. A broad long street, the houses of which are in a straight line, may give some idea of the channel of this river at Hickman's Ferry: it swells prodigiously in spring and autumn, and then its waters rise sixty or seventy feet in a few days.

At this tavern I met with an inhabitant of the country, whose residence was sixty miles farther off. This man, with whom I entered into conversation, and who appeared to me to be in comfortable circumstances, pressed me greatly to pass a week with him, and supposing I was looking for land to settle on, which is generally the object of those who visit Kentucky, he offered to show me a good spot, being very desirous, he said, to have an inhabitant of the *old country* for a neighbour. I have frequently had occasion, both in this state and in that of Tennessee, to refuse similar proposals, from unknown persons, whom I met in the taverns, or with whom I sought a lodging, and who afterwards invited me to pass some days in their family.

A mile beyond the Kentucky, I quitted the road to Danville, and took that to Harrod's Burgh, for the purpose of visiting General Adair, to whom Dr. D. Ramsay, of Charlestown, had given me a letter of recommendation. I arrived at his house the same day. I crossed *Dick's River*, not so broad as the Kentucky, but which, like it, is pleasant at this season. Its bed is similarly worn down, and, as if inclosed in the rock. That part of the right bank which is opposite to the landing-place is a steep rock, of calcareous substance, and upwards of two hundred and fifty feet in height. The strata form one continued mass, without interstice, and which are only distinguished by bluish parallel zones, the colour of which forms a contrast with the whiteness of the rest of the mass. From the summit itself there are to be seen furrows worn into the rock, very close to each other, and which are indefinitely prolonged. These furrows have been evidently formed by the current of the river, which, at remote periods, has had its bed at different levels. Like the *Kentucky*, *Dick's River* is liable to extraordinary floods in the spring and autumn. The stratum of vegetable earth which covers the rock appears not to be above two or three feet thick. It bears the Virginia cedar. This tree, which affects elevated places, where the calcareous substance is nearest to the surface of the soil, thrives well here; but the other trees, such as the black oak, the hickery nut, &c. are stinted and of a very miserable appearance.

General Adair being absent when I arrived at his house, his lady received me in the most obliging manner, and for five or six days, which I stopped with her, I was treated with the same attention and good will as an intimate friend of the family might have expected.

A large and convenient house, a great number of black servants, his equipages, all indicated the opulence of the general, which is known not to be the usual attendant of those who are possessed of that rank in America. His estate is near *Harrod's Burgh*, in *Mercer County*. Large orchards of peach-trees, and extensive fields of maize, surround the house. The soil of it is extremely fertile, as is evident from the thick trunks and extraordinary height of the trees, as well as from the abundance of the harvests, which yield annually from thirty-five to forty quintals of grain per acre. The surrounding forests are principally composed of those species of trees which are met with in the best districts, such as the *Gleditsia 3 acanthos, Guilandina dioica, Ulmus viscosa, Morus rubra, Corylus, Annona triloba.* Finally, the surface of the land, for several miles round, is level, which is very uncommon in this country.

Not being able to delay my journey longer, I did not accept of Mrs. Adair's invitation, who pressed me to stay till her husband's return; and, on the 20th of August, I proceeded to Nashville, regretting very much that I had been unable to form an acquaintance with the general.

On the first day I went twenty-four miles, and slept at Hay's, who keeps a tavern fifty miles from Lexington. Harrod's Burgh, which I passed through on this day, consists at present of not more than twenty scattered houses, built of planks. Twelve miles farther on, I regained the road to Danville, at Chaplain Fork. In this interval, which is not inhabited, the soil is excellent, but very uneven.

I travelled five-and-twenty miles on the second day, and stopped at Skeggs's tavern. Ten miles before reaching it is *Mulder Hill*, very high and steep, and in the form of an amphitheatre. I went up it on foot. From its summit, the country I had passed through has the appearance of an immense valley, covered with forests, to which no limits can be discovered, either to the right or to the left, and where, as far as the eye can reach, nothing is to be seen but an extent of dusky verdure, formed by the tops of the trees, which touch, and through which no habitation can be discovered; they are also too widely dispersed to be noticed in the distance. The profound silence which reigns in these woods, the absence of every dangerous animal, and the security enjoyed in them, form an aggregate which is seldom met with in other countries. At the summit of Mulder Hill the road divides, and meets again some miles further on. I took that on the left, and the first plantation I came to, belonged to Mr. Macmahon, formerly a professor of a college in Virginia, who has lately come to reside in this country, where he exercises the functions of a clergyman.

Skeggs's tavern, where I stopped after leaving Mulder Hill, was the worst place I put up at between Limestone and Nashville: it was completely destitute of provisions, and I was obliged to sleep on the floor, wrapped in my blanket, without having been able to procure any thing for supper. There being no stable belonging to the house, I put my horse into a peach-orchard, to graze. The fences were broken, and fearing that he might get out in the night, I put a bell about his neck, which travellers who are exposed to the chance of sleeping in the woods, always take care to be provided with. The peaches were nearly ripe, and, in the morning I perceived, from the great number of kernels lying under three or four trees, which my horse had not quitted, that he had been eating them all night; he was the better enabled to do this from the branches being bent to the ground by the weight of the fruit.

Eight miles from Skeggs's, I forded over the *Green River*: after a long circuit, through a narrow valley, which is seldom more than a mile in breadth, it falls into the Ohio. Where I crossed it, the water was not more than three feet in depth, at a place which was fifteen or twenty toises broad; but in the spring, the only time at which it is navigable, its waters rise to a height of eighteen feet, judging from the roots of some trees which grow on its sides, and appear to have been laid bare by the current. After crossing the river, the road winds, for about two miles, through that part of the valley which is on the right bank. The soil of these low lands is a slimy earth, extremely fruitful, in which, to the exclusion of every other species of tree, grow beeches of a diameter proportionate to their great height, and which, as far as five-and-twenty feet above the earth, are without a single branch. The inhabitants of the country consider the land which is occupied by these trees to be the most difficult to clear.

CHAP. XVI.

Passage of the Barrens, Meadows.—*Plantations formed on the Road which crosses them.—Their Appearance.—Plants found here.—Arrival at Nashville.*

TEN miles from the Green River runs the *Little Barren*, a small river, thirty or forty feet in breadth, the banks of which are high and rocky. The land in the environs is dry and arid, and produces nothing except a few Virginian cedars, double leaved pines, and black oaks. From this river begin the *Barrens*, or meadows of Kentucky. I travelled thirteen miles across these meadows on the first day, and lodged with one Williamson, near *Bear's Wallow*.

Next morning, I wished to water my horse before I set off. For this purpose, my host directed me to a spring, about a quarter of a mile from the house, where his family procured water, and from whence a path would lead me back to the road. I lost myself, however, and after a forced march of two hours, discovered a plantation, in a deep and narrow valley, where I learnt that I was far out of my road, and that I must return to the place from which I had come. The mistress of the house told me that she had lived three years in these *Barrens*; that for eighteen months she had not seen any person; that, weary of living in this sequestered manner, her husband had been gone about two months to look for other lands towards the mouth of the Ohio. Such was the pretext for this change of residence, which would be the third, since the family had left the back settlements of Virginia. A daughter of fourteen years of age, and two children much younger, were all the company which this woman enjoyed: in other respects, her house was very abundantly supplied with maize and milk.

This part of the *Barrens* which chance

had thrown me upon, was exactly similar to that I had crossed the night before. I found a hole, in the shape of a funnel, where I spent an hour in getting half a bucket of water for my horse. The time employed in this way, that which I had lost by straying from my road, and, finally, the great heat, obliged me to shorten my route, and I stopped for the night at *Dripping Spring*, only nineteen miles from Bear's Wallow.

Next day, the 26th, I went eight-and-twenty miles, and stopped with Jacob Kesly, of the sect of *Dunkers*, as I discovered by his long beard. Ten miles from Dripping Spring, I forded the *Big Barren River*. This river, the banks of which are covered with wood for a space of from one to three miles, appeared to me to be a third broader than the *Green River*. The plantation of Macfiddit, who keeps the ferry-boat, against floods, and Chapman's, which is three miles farther, are the two oldest establishments on this road, having been formed thirteen or fourteen years.

When I was here, a boat loaded with salt had just arrived from Saint Genevieve, a French village, on the right bank of the Mississippi, a hundred miles above the mouth of the Ohio.

My host's house was not better furnished than those where I had lodged on the preceding days, and I was again obliged to sleep on the floor. Most of the inhabitants of this part of Kentucky have been too lately established to have made much improvement in their possessions: they are not well provided with any thing but maize and forage.

On the 27th of August, I set off early in the morning, and thirteen miles from Kesly's crossed the line which separates the state of Tennessee from that of Kentucky. The Barrens also end there, and, to my great satisfaction, I re-entered the woods; for nothing is more wearisome than the dull uniformity of these immense meadows, where no human being is met with, nor, with the exception of a great number of partridges, *Perdix Marylanda*, is any living thing heard or seen, and which is more sequestered than the middle of a forest.

The first habitation I met with on entering Tennessee, belonged to a person named Cheeks, of whom I conceived a very bad opinion from the conversation he was holding with seven or eight of his neighbours, with whom he was drinking whiskey immoderately. Fearful of witnessing some of the sanguinary scenes which, among the inhabitants of these countries, are too frequently the consequence of the intoxication produced by this liquor, I hastened to quit the tavern, went three miles farther, and passed the night with a very civil farmer, whose house was well supplied. The sons of the late Duke of Orleans lodged in this house some years before. The following day I arrived at Nashville, after travelling seven-and-twenty miles.

The *Barrens*, or meadows of Kentucky, comprize an extent of sixty or seventy miles in length, by fifty or sixty in breadth.

From the signification of the word I expected to cross a bare tract, with a few plants scattered here and there upon it: and in this opinion, I was supported by the notion which some of the inhabitants had given me of these meadows, before I reached them. They told me, that, at this season, I should perish with heat and thirst, and that I should not meet with any shade the whole length of the road; for, the greater number of the Americans, who live in woods, have no conception that countries can exist which are entirely free from them, and still less that they can be habitable. Instead of finding a country such as had been described to me, I was agreeably surprized to see a beautiful meadow, well covered with grass, of two or three feet in height, which is used to feed cattle. A great variety of plants also grow here, among which the *Gerardia flava*, gall of the earth, the *Gnaphalium dioicum*, white plantain, and the *Rudbekia purpurea*, were at this time predominant. I noticed that the roots of the latter plant have, in a certain degree, the acrid taste of the leaves of the *Spilanthus oleracea*. When I crossed these meadows, three-fourths of the plants had done flowering, and the period of the maturity of the greater part of their seeds was still far distant; I, however, collected about ninety specimens, which I have brought to France.

In some parts of these meadows, several species of wild creeping vines are met with, and particularly that called by the inhabitants, *summer grapes*. These grapes are as large, and of as good a quality, as those from the vineyards in the neighbourhood of Paris, with this difference, that they are not so close upon the bunches.

I am of opinion that the attempts which have been made to cultivate the vine in Kentucky would have succeeded better in the *Barrens*, the soil of which appears to me to be much more adapted for this species of culture than the banks of the Kentucky: that is richer, it is true; but the nature of the country, and the vicinity of the forests, render it also more humid.

This was the opinion of my father; he thought that, of all the parts of North America which he had travelled over, during a residence of twelve years, the states of Kentucky and Tennessee, and more especially the Barrens which belong to them, were the places where the vine might be cultivated with the greatest probability of success. His opinion was formed, in a great degree, on this, that in these two states, the stratum of vegetable earth rests on a calcareous mass.

The Barrens are circumscribed within a chain of woods, two or three miles in breadth, forming a continuation of the forests which cover the country. The trees composing them are not very close, and their distances from each other increase in approaching the meadows. On the Tennessee side, this chain is formed exclusively of *Post oaks, Quercus obtusiloba*, the wood of which being very hard, and not perishing easily, is preferred to all others in the formation of fences. This tree, which is of great utility, might be naturalized with the greater facility in France, because it thrives among the pines in very bad soils. Here and there, through the meadow, are also to be seen black oaks, *Quercus nigra*, and walnuts, *Juglans hickery*, which rise to about twelve or fifteen feet; sometimes they form small groves, but always so far asunder as not in any way to interrupt the sight. With the exception of little sallows about two feet high, *Salix longirostris*, and some sumachs, there is not any shrub to be seen. The surface of these meadows is in general very even; but, towards Dripping Spring, I observed a long and high hill, slightly covered with wood, and with enormous detached rocks, which are visible from the road.

There appears to be a great number of subterraneous caverns in the *Barrens*, some of which are very near the surface. A short time before I passed this way, one of them sunk in the road, near Bear's Wallow, under the feet of a traveller, who only escaped by the most fortunate chance. The danger of such accidents, in a country where the habitations are so remote from each other, and where, perhaps, a traveller does not pass once in fifteen days, may be conceived.

There are also to be seen in these meadows, broken holes, of the shape of a funnel, the breadth of which varies, according to the depth, from fifteen to thirty feet. In some of these cavities, at five or six feet from the bottom, there is a small trickling stream of water, which is totally lost in a crevice at the lower extremity of the funnel. These kind of streams never dry up, which has induced several of the inhabitants to settle in their vicinity; for, except the Big Barren river, I did not discover the smallest brook or creek through all these plains. Neither have I heard of any attempt having been made to dig wells; and, therefore, can form no judgment of the success of the trials which will doubtless be hereafter made with this view. From these observations it is evident, that the want of water, and of wood fit for fences, will long be an obstacle to the increase of the establishments in this part of Kentucky. One of these inconveniences might, however, be obviated, by altering the present mode of inclosing the lands, and substituting quick hedges to it; then the honey locust, *Gleditsia triacanthos*, one of the commonest trees in the country, might be employed with success. The Barrens are therefore, at present, very thinly inhabited, in comparison with their extent; for on the road, where the plantations are the most contiguous, there are only eighteen in a space of seventy miles.

Some of the inhabitants divide the lands of the Barrens of Kentucky into three classes, according to their qualities; and, in their opinion, the middle class occupies the largest part of them. That part which I crossed, where the soil is yellowish, and a little gravelly, seemed to me very well calculated for the culture of wheat: that of maize is nearly the only one in which the inhabitants appear to employ themselves; but the settlements being yet very recent, the lands cannot have acquired that degree of prosperity which is observed on the other side of Mulder Hill. Most of the emigrants who come to settle in this country keep towards the woods, or along the Little or Big Barren rivers, whither they are attracted by the advantages they derive from the meadows in rearing cattle; an advantage of which the inhabitants of the most fertile woody districts are, in some measure, deprived, for there is scarcely any grass to be met with in them.

Every year, in the course of the months of March or April, the inhabitants set fire to the herbage, which, at that period, is dry, and the extreme length of which would deprive the cattle for a fortnight or three weeks longer of the new grass, which then begins to shoot. This custom is, however, generally blamed, and with reason, for being set fire to too early, the grass dries, and, in consequence of its drooping, does not protect the rising crop from the spring frosts, and its vegetation is retarded. This custom was formerly practised by the natives who came to hunt in these countries, and is still continued by them in other parts of North America, where there are savannahs of vast extent. Their object in setting fire to them is to attract the stags, bisons, &c. into the burnt parts, where they can perceive them at a distance. No idea can be formed of these dreadful conflagrations without having seen them: the flame, which generally occupies a line of several miles in extent, is sometimes driven forward by the wind with such rapidity that men on horseback have become their prey. The American hunters, and the savages, preserve themselves from this danger by a method as simple as ingenious: they immediately set fire to that part of the meadow in which they happen to be, and afterwards retreat into this burnt spot, where the flame which threatened them stops for want of fuel: this is what the Canadian hunters call *making their own fire.*

CHAP. XVII.

General Observations on Kentucky.—Nature of the Soil.—First Establishments of this State.—Little Security in the Titles of the Proprietors.—Population.

THE state of Kentucky is situated between 36° 30′ and 39° 30′ of latitude, and between the 82° and 89° of longitude. Its limits are—to the north and west, the Ohio, for an extent of about seven hundred and sixty miles; to the east, Virginia; and to the south, the state of Tennessee. It is separated from Virginia by the river Sandy and by the Laurel Mountains, one of the principal branches of the Allegany Mountains. The greatest length of this state is four hundred miles, and its greatest breadth about two hundred. This vast extent seems to rest on a bed of lime-stone, perfectly alike in its nature, and covered by a stratum of vegetable earth, the composition of which varies, from a few inches to twelve or fifteen feet in thickness. The extent of this immense bank is not yet defined in an accurate manner, but its thickness must be very considerable, judging from the appearance of the rivers of the country, the banks of which, and particularly those of the *Kentucky*, and *Dick's River*, which is a branch of it, rise, in some places, to three hundred feet perpendicular, and, through all this height, leave the calcareous stone exposed to view.

Though the land of Kentucky is uneven, it is not mountainous, with the exception of some parts intersected by hills, near the Ohio, and on the Virginia side. Limestone, and numerous unexplored mines of coal, are nearly the only mineral substances observed here. There are not many iron mines, and, if I recollect rightly, only one of them is worked, which is far from supplying the wants of the country.

The rivers *Kentucky* and *Green*, the two most considerable in this state, fall into the Ohio, after a course of three hundred miles; they are so low in the summer, that they may be forded at a hundred and fifty miles above their efflux; but in the winter, and in the spring, they are frequently swelled by floods, so sudden and so great, that the waters of the Kentucky, for example, will rise forty feet in four-and-twenty hours. This variation is still more remarkable in the secondary rivers which fall into it; these, though frequently ten or fifteen toises broad, have so little water in summer, that there is scarcely one of them which may not be passed on foot, dry-shod, at that season; and the small quantity of water which meanders over the bed of calcareous rock, is then reduced to a few inches in depth. Kentucky may, therefore, be considered as a vast basin, which independently of the natural efflux of its waters by the channel of the rivers, permits a great part of them to escape by internal openings. The Atlantic part of the United

States offer a perfect contrast, in this respect, to that of Kentucky: on the opposite side of the Allegany mountains, there is not the slightest trace of lime-stone. The rivers, large and small, and at all distances from their sources, experience no other change than what arises from a more or less rainy season; and the springs, which are very numerous, always supply water in abundance: this is more especially applicable to the southern states, with which I am well acquainted.

From this concise account of Kentucky, it will be readily supposed that its inhabitants are liable to a very serious inconvenience, that of wanting water in the summer; those, however, must be excepted, who live in the vicinity of large rivers, or of the principal small ones which run into them, which always have a sufficiency of water to supply their domestic wants; whence it results that many estates, even among those most fertile, are not cleared, and that the proprietors can not easily dispose of them, because the emigrants, who are now better informed, will not make purchases without a correct knowledge of the localities.

Of the three states situated to the west of the Alleganys, Kentucky was the first peopled. This country was discovered in 1770, by some Virginian hunters, and the favourable account they gave of it, induced others to go there. However, there was not any fixed establishment formed until 1780. At that time this extensive country was not occupied by any Indian nation: they came there to hunt, but, with one accord, carried on a war of extermination against all who attempted to settle there. This was the cause of giving the name of Kentucky to the country, which in the language of the primitive Americans, signifies the *land of blood*. When the whites appeared there, the natives gave a still more obstinate opposition to their establishment: for a long time they spread devastation and slaughter through the country, and, according to their custom, put their prisoners to death with the most cruel torments. This state of things lasted until 1783, at which time the American population having become too great for them to be able to penetrate into the heart of the establishments, they were reduced to attacking the emigrants on their road; and, besides, they were then abandoned by the English of Canada, who had animated and supported them in this war.

It was in 1782 that they began to open roads for carriages through the interior of the country: before that time there were nothing but tracks, passable only by people on foot, or on horseback. Until 1788 the road through Virginia was the only one followed by the emigrants who came from the eastern states to Kentucky. They went first to the Block-house, situated in Holston, to the west of the mountains; and, as the government of the United States did not furnish any escort, they waited at this place until their numbers were sufficient to pass safely through the *Wilderness*, an uninhabited interval of an hundred and thirty miles, which they were obliged to cross, before they arrived at *Crab-Orchard*, the first post occupied by the whites.

The enthusiasm for emigrating to Kentucky was, at this time, carried to such a height in the United States, that, in some years as many as twenty thousand emigrants went there, and several of them even abandoned their property, if they were unable to dispose of it in a short time. This influx of new colonists soon raised the price of land in Kentucky; from two or three pence an acre, at which it had been sold, it rose rapidly to forty or fifty pence. Speculators took advantage of this infatuation. A multiplicity of illicit means were put in action to make these lands sell to advantage. Even forged plans were fabricated, on which rivers were laid down, calculated for the establishment of mills and for other uses: in this manner many ideal lots from five hundred to a hundred thousand acres were sold all over Europe, and in some of the large towns of the United States.

Until 1792, Kentucky was a part of Virginia, but the distance of Richmond, the seat of government of that state, which is six or seven hundred miles from Lexington, was the cause of the most serious inconveniences to the inhabitants; and, their number having increased greatly beyond that required to form an independent state, they were admitted into the union, in the month of March of the same year. The state of Virginia only consented to abandon its claims to this country on certain conditions; it obliged the convention of Kentucky, to follow, in part, the same code of laws, and particularly to keep the negroes in slavery.

Before 1782, the number of the inhabitants of Kentucky did not exceed three thousand: in 1790, it was a hundred thousand, and, at the general census, taken in 1800, it amounted to two hundred and twenty thousand. When I was at Lexington, in August, 1802, the population was estimated at two hundred and fifty thousand, including twenty thousand negro slaves, Thus, in this state, where it would be difficult to find ten individuals of twenty-five years of age, who were born in it, the number of the inhabitants is already as large as in seven of the old states; and there are only four, of which the population is twice as numerous. This increase, rapid as it was, would have been much more so, had it not been for one circumstance, which prevents the emigrants from flocking to it; I allude to the difficulty of ascertaining the titles to the land. Of all the states of the Union, it is in this that the titles are most the subjects of contest. I did not stop with a single inhabitant, who, while he appeared to believe the validity of his own title, was not in doubt on that of his neighbour.

Among the many causes which have contributed to this incredible confusion in property, one of the principal may be ascribed to the unskilfulness of the surveyors, or, rather, to the difficulty they experienced, at first, in following their occupations. The continual state of war in which the country then was, frequently obliged them to suspend their labours, to avoid being shot by the natives, who lay in wait for them in the woods. The danger they ran was extreme, for, it is well known, that a savage will frequently travel fifty miles to kill a single enemy; that he will remain several days successively in the hollow of a tree to surprise him, and that, having succeeded, and scalped him, he returns with the same rapidity. From this state of things it has resulted that, not only the same lot has been measured several times by different surveyors, but, which is the most common, that it has been intersected by different lines, which made this or that part of one lot belong to the adjacent ones, and these, in their turns, were in the same situation with respect to those contiguous to them. Finally, there are some lots of a thousand acres, out of which there are not an hundred which have not been claimed. The *military rights*, however, are considered as more certain. One remarkable circumstance, is, that many of the inhabitants derive the security of their estates from this confusion; for the law, which is very favourable to agriculture, provides that the cost of clearing and of improvements shall be paid by him who succeeds in ejecting the first occupier: and, as the valuation, on account of the extreme high price of labour, is always made in favour of the cultivators, it follows that many dare not assert their rights, from a fear of being obliged to pay considerable indemnifications, and of being, in their turns, expelled by others, who may attack them when they least expect it. This uncertainty in the titles of the estates is an inexhaustible source of litigations, as long as they are expensive, and produces great wealth to the lawyers of the country.

CHAP. XVIII.

Division of the Land into Classes.—Species of Trees peculiar to each of them.—Gimseng.—Native Animals of Kentucky.—Squirrel hunting.

In Kentucky, as well as in Pennsylvania, Virginia, and the Carolinas, the land is divided into three classes, for the more equal assessment of the land tax. This division, which is according to the fertility of the land, has a different relation in each state; thus, in Kentucky, for example, they put the same sort of land into the second class, which, east of the mountains, would belong to the first; and, in the third, they rank such as, in Georgia and Lower Carolina, would be put into the second. I do not, however, mean to be understood by this, that there are no lands in the eastern states, as fertile as those of the west; but they are not common, and are seldom met with but by the sides of rivers and in the vallies, and do not include such a considerable extent of country as in Kentucky and that part of Tennessee to the westward of the Cumberland mountains.

In these two states they appreciate the degree of fertility of the land by the different species of trees which grow upon them: thus when the sale of a lot of land is advertised, they are careful to specify that such or such kind of trees grow on such or such parts, which is sufficient information to the purchaser. This rule, however, admits of an exception, with respect to the *Barrens*, the soil of which, as I have mentioned, is very fertile, and on which, nevertheless there are found the *Scruby oak, Quercus nigra*, and the *Juglans hickery*, which, in the forests, are evidences of the worst soil. Supported by this mode of estimating the fecundity of the soil by the nature of the trees which it produces, I shall mention a very remarkable observation, which I made as soon as I arrived in this state. In Kentucky and Cumberland * independently of a few trees, which are peculiar to these countries, the mass of the forests, in lands of the first class, is composed of those species which are very rarely met with, to the east of the mountains, in the most fertile soils: these species are principally the following, *Cerasus virginiana*, cherry tree; *Juglans oblonga*, white walnut; *Pavia lutea*, buck eye: *Fraxinus alba, nigra, cerulea*, white, black, and blue ash; *Celtis foliis villosis*, ackberry; *Ulmus viscosa*, slippery elm; *Quercus imbricaria*, black-jack oak; *Guilandina dioica*, coffee-tree; *Gleditsia triacanthos*, honey-locust; and, *Annona triloba*, papaw, which rises to the height of thirty feet. These three last species, in particular, denote the richest lands. In cool mountamous places, and by the sides of the rivers which have not steep banks, there are also found the *Quercus Macrocarpa*, over cup white oak, the acorns of which are as large as a hen's egg; the *Acer saccharinum*, sugar maple; the *Fagus sylvatica*, beech; and also the *Platanus Occidentalis*, plane; the *Liriodendrum tulipifera*, white and yellow tulip-tree; and the *Magnolia acuminata*, cucumber-tree, the three last of which attain to a circumference of eighteen or twenty feet. The plane, as has been mentioned before, grows to a larger size. The two species of tulip-tree, with white and yellow wood, have no external character, either in the leaves, or in the flowers, by which they can be distinguished from each other, and as the yellow wood is most used, before a tree is felled, a piece is cut out, to ascertain whether it is of this species.

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* In the United States, the name of Cumberland is given to that part of Tennessee which lies west of the mountains of that name.

In the lands of the second class, are found *Fagus castanea*, chestnut; *Quercus rubra*, red oak; *Quercus tinctoria*, quercitron; *Laurus sassafras*, sassafras; *Dios-*

piros virginiana, persimon; *Liquidambar styraciflua*, sweet gum; *Nyssa villosa*, gum-tree, a tree which neither yields gum, nor resin, as its name seems to imply.

Those of the third class, which are generally arid and mountainous, scarcely produce any but the black and red oak; the *Quercus prinus montana*, rocky oak, some pines, and sometimes Virginian cedars.

The *juglans pacane* is not met with nearer than the mouths of the rivers Cumberland and Tennessee, from whence the fruit is sometimes brought to Lexington market. Neither does this tree grow to the eastward of the Allegany mountains. The *Lobelia cardinalis* grows abundantly in all the cool humid spots, as well as the *Lobelia syphilitica*; this is more common in Kentucky than in any part of the United States which I have seen. The *Laurus benzoin*, spice-wood, is also plentiful here. The two genera, *Vaccinium* and *Andromeda*, which constitute a series of more than thirty species, and are very abundant in the eastern states, seem, in some degree, excluded from those of the West, and the calcareous district, in which only the *Andromeda arborea* is found.

In all the fertile tracts which are covered with forests, the soil is entirely divested of the graminaceous tribe,: only a few scattered plants rise here and there, and the trees are always so far asunder that a stag may be seen at a hundred or a hundred and fifty toises distance. Before the establishment of the Europeans, all that spot which is now bare was covered with a species of large jointed reed, *Arundinaria macrosperma*, the *cane*, which, in the woods, is three or four lines in diameter, and rises to seven or eight feet, but attains to the height of twenty feet, in the *swamps*, or marshes, bordering on the Mississippi, and acquires a proportionate thickness. Although it often freezes in Kentucky, and is five or six degrees below Zero, for several days in succession, its foliage is always green, and does not appear to suffer from cold.

Although the ginseng is not a plant peculiar to Kentucky, it is, however, very abundant in it, which has determined me to notice it here. The ginseng, *nisi, man's thighs, panax 5-folia,* is found in America, from Lower Canada, as far as the state of Georgia, which comprises an extent of more than five hundred leagues. It thrives most in the mountainous regions of the Alleganys, were it is more abundant, as the mountains lie farther to the south-west. It is also met with in the environs of New-York and Philadelphia, as well as in those parts of the northern states situated between the mountains and the sea; but it is so scarce as not to be worth the trouble of seeking. It is not found in the lower parts of Virginia and the Carolinas. It grows on the declivities of mountains, in cool shady places, and in the richest soil. A man will not take up more than eight or nine pounds of the fresh roots, in a day; these roots are always less than an inch in diameter, even after a growth of fifteen years, if any dependance can be placed on the number of rings on the upper part of the neck of the root, which are produced by the annual addition of successive layers. The form of these roots is elliptical, and when it is bifurcate, which is very seldom, one of the divisions is always much thicker and longer than the other. The seeds of the ginseng are of a bright red, and adhere to each other. The stalks seldom yield more than two or three each: in form and bulk they greatly resemble those of the wood honey-suckle. When freed from their outer covering, they are flat and semicircular. Their taste is more aromatic, and not so bitter, as that of the root. A month or two after they are collected, they appear oily, and it is probably to the rancidity which is, consequently, developed in these seeds, that the difficulty of raising them, after they have been long kept, is to be attributed. They are at perfect maturity from the 15th of September to the 1st of October. I collected about half an ounce of them, which, considering the difficulty of procuring them, is a great quantity.

It was a French missionary who first discovered ginseng in Canada. When it was ascertained that this plant was the same as that which grows in Tartary, and the roots of which are so estimable in the eyes of the Chinese, it became an article of commerce with China. For a short time after its discovery this root was sold for its weight in gold: but this advantageous commerce was not of long duration. The ginseng exported from America was so ill prepared, that it fell to a very low price, and the trade ceased almost wholly: however, it has begun to grow better for some time. If the Americans have been so long deprived of this lucrative trade, it must be ascribed to the little care they take in collecting and preparing the ginseng.

In Chinese Tartary, the collection belongs exclusively to the emperor: it can only be made by his order, and is proceeded in with the greatest care. It begins in autumn, and continues all the winter, the time at which the root has attained to all the maturity and perfection of which it is susceptible; and, by a very simple process, they give it a semi-transparence.

In the United States, on the contrary, they begin to collect the ginseng in the spring, and stop when the frost begins. Its root, then soft and watery, shrivels in drying, and finishes by being extremely hard; by this means it loses a third of its volume, and nearly half its weight: these causes have contributed to lower the price. It is only collected in America by the inhabitants whose usual occupations leave them a little leisure, and by the hunters, who, for that purpose, in addition to their rifle, carry a bag and a small pickaxe. The merchants who are settled in the interior of the country buy the dry ginseng, for about ten pence or a shilling a pound, and sell it again, in the sea-ports, for fifteen, or twenty pence. I have no correct information as to the quantity which is exported annually to China, but believe it exceeds five-and-twenty or thirty thousand weight. Within four or five years, this trade has acquired new activity. Some persons also begin to employ the method practised in China, for giving transparency to the roots.

This process, which has been long described in different works, is still a secret which sells for four hundred piasters in Kentucky. The ginseng, thus prepared, is bought for six or seven piasters a pound, by some merchants in Philadelphia, who are said to sell it at Canton from fifty to a hundred piasters, according to the quality of the roots. At any rate, the profit must be considerable, since there are people who export it themselves from Kentucky to China.

The same animals as are found to the eastward of the mountains, and even in Canada, are also in Kentucky, and in the western country; but soon after the establishment of the Europeans some species disappeared entirely, particularly the *Elks* and *Bisons*. These latter were, however, more common here than in any other part of North America. The want of inhabitants in the country; the quantity of large reeds and wild peas, which supplied them with an abundance of food during the whole year; and the *Licks*, spots impregnated with salt, which have been already spoken of, were the causes which kept them here. Their number was then so considerable, that they were found in troops of a hundred and fifty, or two hundred. They were so tame as not to fear the hunters, who frequently killed them, for the tongue alone, which is considered a delicate morsel. At four years old they weigh from twelve to fourteen hundred weight, and their flesh is said to be preferable to beef. At present they are very scarce from the Ohio to the Illinois river; they are almost all gone over to the right bank of the Mississippi.

The only species of animals which are now common in this country are the following; the deer, the bear, the wolf, the grey and the red-haired fox, the wild cat, the racoon, the oppossum, and three or four species of squirrels.

The animal to which the Americans give the name of *Wild Cat*, is the Canadian lynx, *Felis lynx*, or only a variety of it, and it is by mistake that some authors have asserted that the true wild cat, which is considered as the parent stock of the domestic one, existed in the United States, or farther northward.

The racoon, *Ursus lotor*, is as thick as a fox, but it is not so tall, and more compact. When caught young, it becomes very tame and stops in the houses, where it catches mice in the night. The name of *Lotor*, *Washer*, is very applicable to this animal, for it prefers hollow trees growing on the banks of the creeks, or small rivers, which run through the swamps, for its dwelling; and it is in such places that it is most usually found. This animal is very common in the southern and western states, as well as in the back parts of Pennsylvania and Virginia. It is very destructive in the maize fields; it climbs up the stems, breaks them down with its weight, and gnaws the ears. It is hunted with dogs during the night, for it seldom comes out in the day. Its skin is in great esteem with the hatmakers in all the United States: they give from ten pence to a shilling a piece for them.

In the neighbourhood of dwellings, the planters have more dread of the squirrels, which make great devastation among the wheat. This species, *Sciurus Carolinianus*, is grey, and a little larger than the European one. Their number is so considerable, that, several times a day, the children are sent round the fields to scare them. At the least noise they run off by dozens, and take refuge in the trees, from which they return directly after. Like the bears of North America, they emigrate: at the approach of winter, they make their appearance in Kentucky, in such numbers, that the farmers are obliged to unite to hunt them. This chase is frequently converted into a party of pleasure: they divide into pairs, and may then kill thirty or forty of a morning; while, a single man, on the contrary, will scarcely kill one, for the squirrel, laying himself along the trunk of the tree which he has ascended, turns continually so as to keep it between him and the hunter. I was at one of these great hunting matches, where, for dinner, which is usually eaten in a place in the wood appointed for a rendezvous, upwards of sixty were roasted. Their flesh is white and very good, and this mode of cooking it is preferable to every other.

The wild turkies, which begin to be very scarce in the southern states, are plentiful in those to the westward. In the most uninhabited parts they are so tame as to be easily killed with a pistol-shot. In the east, on the contrary, and particularly in the neighbourhood of the sea-ports, they cannot be approached without difficulty: they are not alarmed by a noise, but they have a very quick sight, and as soon as they discover the hunter, fly away with such rapidity, that it takes a dog several minutes to come up with them; and when they see themselves on the point of being caught, they escape by taking to flight. The wild turkies generally remain in the swamps, and by the sides of rivers and creeks, and only come out in the morning and evening. They perch on the tops of the highest trees, where, notwithstanding their bulk, it is not always easy to see them. When they have not been frightened, they return to the same trees for several weeks in succession.

To the east of the Mississippi, in a space of more than eight hundred leagues, this is the only species of wild turkey which is met with.* They are larger than those reared in our poultry-yards. In autumn and in winter they feed chiefly on chestnuts and acorns; and some of those killed at this season weigh thirty-five or forty pounds. The variety of domestic turkies, to which the name of English turkies is given, in France, came originally from this species of wild turkey; and when they are not crossed with the common species, they retain the primitive colour of their plumage, as well as that of their legs, which is a deep red. If, subsequent to 1525, our domestic turkies were naturalized in Spain, and from thence were introduced into the rest of Europe, it is probable that they were originally from some of the more southern parts of America, where there doubtless exists a species different from that of the United States.

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*There is one specimen of a female in the collection of the Museum of Natural History.

CHAP. XIX.

Of the different Kinds of Culture established in Kentucky.—Exportation of the territorial Produce.—Peach-trees.—Taxes.

IN the state of Kentucky, as in all the central and southern states, nearly the whole of the inhabitants, sequestered in the midst of woods, cultivate their estates themselves, from which they never obtain more than the twentieth, thirtieth, or even the fortieth part of its value. They, however, assist each other at harvest-time, and some of them, whose circumstances are better, have negro slaves to cultivate their lands.

In this state, they grow tobacco, hemp, and the different grains of Europe, but principally maize and wheat. The cold, which sets in very early, renders the culture of cotton too precarious; otherwise, the great profit it yields would have induced the inhabitants to cultivate it with spirit, had there been any probability of success. All who form establishments begin by sowing maize, for in the years immediately succeeding the clearing, the soil is so fertile, in lands of the first class, that the wheat sheds its grain before the ear is formed. The following is the mode in which this culture is conducted: having first ploughed furrows at about three feet asunder, they afterwards cut them transversely, with others, at the same distance, and plant seven or eight grains in the points of intersection. When they are come up, only two or three stems are left; this precaution is necessary to promote the more complete development of the vegetation, and to secure an abundant crop. In the course of the season the land is ploughed several times to destroy noxious weeds, which spring up in great abundance, as soon as the land is cleared, and brought into culture. Towards the middle of summer, the lower leaves of the stalk begin to dry, and so on successively to the top. As this desiccation proceeds, they are carefully taken off and kept in reserve to feed the horses during the winter, and they prefer this forage to the best hay.

In lands of the first class, which bear every year, the maize rises to the height of ten or eleven feet; in common years, it yields forty or fifty English bushels per acre, and from sixty to seventy-five in abundant years: there have even been some, which, in the second and third year after the clearing, have yielded as much as a hundred bushels per acre. The bushel weighing from fifty to fifty-six pounds, is never sold for more than a quarter of a piaster, and sometimes is not worth half so much.

The species of maize which is cultivated, is that with a long flat grain, and of a white or yellow colour. The harvest is about the end of September. A single man can cultivate eight or ten acres of it.

The culture of wheat is of the greatest importance to the country, much more so, however, as an article of exportation than of consumption. The county of Fayette, of which Lexington is the chief place, and the surrounding counties, are those which grow the most: good lands yield from twenty-five to thirty bushels, weighing from sixty to sixty-five pounds each per acre, although it is not usual to put any manure upon them, and they are only ploughed once.

The harvest is in the beginning of July. The wheat is cut with the sickle, and thrashed with a flail in the barn. The grain is of a good colour, and very much resembles that which is grown in the *ci-devant Beauce.* When the land shall be more cleared, and the cultivation of it better attended to, I am convinced that, considering the excellence of the soil, the flour will be superior in quality to that of Philadelphia, which is known to surpass the finest in France in whiteness, but is less profitable to the baker.

The plough which they make use of is light, without wheels, and drawn by horses: it is the same in the central and southern states.

The cockle, corn-flower, and poppy, so common among the wheat in our fields, are not plentiful in North America.

In the year 1802, the wheat harvest had been so abundant in Kentucky that, in the month of August, when I was at Lexington, no more than a quarter of a piaster per bushel was offered for it. It had never been so low before. This reduction, however, was not attributed solely to the abundance of the harvest, but also to the return of peace in Europe. They are convinced in the country that, at this price, the culture of wheat cannot be supported as an article of commerce; and that, for the farmers to be enabled to cover their expenses, the barrel of flour should never be sold, at New Orleans, below four or five piasters.

In all the United States the flour which is exported is packed in light barrels, made of oak, and of an uniform size. At Kentucky the price of them is three-eighths of a piaster; they hold one hundred and ninety-six pounds of merchantable flour, which requires five bushels of wheat, including the loss by grinding.

The boats for conveying flour to Lower Louisiana cost about a hundred piasters; they stow from two hundred and fifty to three hundred barrels, and are navigated by five men, of whom the chief conductor receives a hundred piasters for the voyage, and the others fifty each. From Louisville, where nearly all the embarkations take place, they require thirty, or five-and-thirty days to reach New Orleans. It is reckoned four hundred and thirty-five miles from Louisville to the mouth of the Ohio, and about a thousand more from thence to New Orleans, which makes the passage one thousand four hundred and thirty-five miles in the whole; and these boats have to pass through a space of eight or nine hundred miles on the river, without seeing a single dwelling. Part of the men return to Lexington by land, which is a distance of eleven hundred miles, in forty or five-and-forty days. This journey is exceedingly laborious, and those who are unwilling to encounter the fatigues of it, return by sea: they embark at New Orleans for New York or Philadelphia, from whence they proceed to Pittsburgh, and afterwards descend the Ohio to Kentucky.

A statement by the inspector of the port of Louisville, inserted in the *Kentucky Gazette* of the 6th of August 1802, makes the number of barrels of flour which passed through that port for Lower Louisiana, from the first of January to the 30th of June of that year, amount to 85,570: more than two-thirds of this quantity may be considered as coming from the state of Kentucky, and the remainder from that of the Ohio, and chiefly from the establishments on the rivers Monongahela and Allegany. The spring and autumn are the principal seasons during which this exportation is carried on;

there is hardly any in the summer, nearly all the mills in the country being in want of water at that season.

Rye and oats also thrive very well in Kentucky. The rye is almost all employed in the distillation of whiskey, and the oats make part of the food of the horses; it is frequently given to them in small bundles of two or three pounds, without being thrashed.

The culture of tobacco has been carried to a great extent within these few years. The temperature of the climate, and the extraordinary fertility of the soil, give this state a very great advantage over that of Virginia in this article; and, with flour, tobacco forms one of the principal branches of its commerce; several thousand hogsheads of it, weighing from one thousand to twelve hundred pounds each, are exported annually: its price is from two to three piasters per quintal.

Hemp, both raw and manufactured, is also an article of exportation. In the same year, 1802, there was sent out 42,048 pounds of it raw, and 2,402 quintals, manufactured into cables and cordage.

Many of the inhabitants cultivate flax; and the women make linen of it for the use of their families, and exchange the surplus with the merchants for articles imported from Europe. These linens, though coarse, are of a good quality; they are, however, only used by the least wealthy part of the inhabitants; the others buy Irish linens, which are a considerable article of commerce; although white, they are not so good as our linens of Brittany; these would have met with a great sale in the western states, had not the cession of Louisiana taken place; for it is now well ascertained that the conveyance of merchandise up the river from New Orleans to Louisville, is not so expensive as bringing it from Philadelphia to Limestone.

Although the temperature of Kentucky, and of the other western states, is very favourable to the culture of fruit-trees, and particularly stone-fruits, these states have been too recently peopled for the inhabitants to have given much attention to them; besides, the Americans do not feel so much interested in this branch of culture as we do in France. Hitherto they have confined themselves to planting a few apple-trees, and a very great number of peaches.

The latter are greatly multiplied, and arrive at the highest degree of perfection: there are five or six species of them, of which some are early and some late, with the flesh either white, red, or yellow, and either quitting or adhering to the stone. The peaches of these different species are of an oval form, and larger than our cultivated peaches. All the trees are in the open ground, and grow from kernels, without being grafted or cut; they thrive so vigorously that, by the fourth year, they are in full bearing: almost all the inhabitants plant them round their houses, and others have large orchards of them, disposed in a quincunx form. For two months before the fruit comes to maturity, they turn pigs into them; these animals eagerly seek the windfalls, which are very numerous, and crack the shells to get at the kernels.

The immense quantity of peaches which they gather is converted into brandy, of which there is a great consumption in the country, and the remainder is exported by the river. Only some of the inhabitants have stills; the others carry their peaches to them, and receive a quantity of brandy proportionate to the quantity of their fruit, allowing a portion for the expense of the distillation. Peach brandy is sold for one piaster a gallon, amounting to little more than four (French) pints.

In Kentucky, the assessments are made in the following manner: a sum of forty *sous tournois* (equal to halfpence) is paid per head for the whites; thirteen sous per head for negroes; six sous for a horse; fifty-two sous for a hundred acres of land of the first class, cultivated or not cultivated; thirty-five sous for a hundred acres of the second class; and thirteen sous for a hundred of the third class. Although these taxes are, as may be seen, very moderate, and no one complains of them, there are, nevertheless, a great number always in arrears for the payment of them. I learned this from the repeated advertisements of the collectors, which I saw stuck up in different parts of the town of Lexington; but these arrearages are not peculiar to the state of Kentucky, for I have made the same observation in those of the east.

CHAP. XX.

Horses and Cattle of Kentucky—Necessity for giving them Salt.—Wild Horses taken in the Plains of New Mexico.—Exportation of Salt Provisions.—Manners of the Inhabitants.—Religious Sects.—Public Schools.

FOR some time past the inhabitants of Kentucky have engaged in breeding horses, and by this lucrative branch of commerce have found a means of deriving great benefit from the superabundant quantity of maize they grow, as well as from the oats and other forage, which would not find a market at New Orleans.

The horses of this country came originally from Virginia, which, of all the states of the union, is reputed to have the finest horses for the saddle or carriage; and most of them were brought here by the emigrants who came from Virginia to settle in this state. The number of horses, which is already very considerable, augments daily. Almost all the inhabitants employ great care in breeding, and improving the breeds, and consider this amelioration as of such importance, that the owners of fine stallions charge as much as fifteen or twenty piasters for covering. These stallions are brought from Virginia, and, as I have been assured, some are also imported from England. The foals produced from them have a delicate leg, a well-proportioned head, and an elegant slender form. This is not the case with the draught horses; the inhabitants take no pains in improving that breed; they are consequently small, and have a bad appearance, greatly resembling those used by the wood-carriers in our forests. They seemed to me to be still worse in Georgia and the Upper Carolinas. In fact, I do not hesitate to assert, that there is not, in all the United States, a single draught-horse which can be brought into comparison, in any way, with those of the second rate, bred for this purpose, in the *ci-devant* Picardy. This is an assertion to which very few Americans will give credit, but it is nevertheless true.

Some individuals undertake the treatment of sick horses, but none of them have any regular ideas of the veterinary art, so essential in a breeding country, and which has lately attained to such a great degree of perfection in France and England.

In Kentucky, as well as in the central and southern states, maize is the only grain usually given to horses. They account its nutritive quality to be double that of oats; however, they are sometimes mixed. In this state, they do not give rations to their horses. In the generality of the plantations, the manger is filled with maize: the horses eat it at will; quit the stable to go to the pasture, and return to feed on the maize when they please. They are never tied up, and remain almost always in the inclosures kept purposely for them. The stables are only log-houses, open to the weather on all sides, the spaces between the trunks of the trees not being filled with clay.

The southern states, and particularly South Carolina, are the principal markets for the fine horses of Kentucky. They are taken there in troops of fifteen, twenty, or thirty together, at the beginning of winter, the time when business is briskest in Carolina, and when the conductors are not apprehensive of the yellow fever, of which the inhabitants of the interior have a great dread. They are generally eighteen or twenty days in going from the neighbourhood of Lexington to Charlestown. This distance, which is seven hundred miles, makes a difference of five-and-twenty or thirty per cent. in the price of the horses. In Kentucky, a handsome saddle horse costs about a hundred and thirty, or a hundred and forty piasters.

During my residence in this state I had an opportunity of seeing some of the wild horses, which are taken in the plains of New Mexico, and are descended from those left there formerly by the Spaniards. For catching them, they make use of the domestic horses, which are much nimbler, and on which they get near enough to them to entangle them. They are brought to New Orleans and to the Natches, where they are sold for about fifty piasters. The conductors of the boats, who return by land to Kentucky, sometimes buy them. The two which I saw, and tried, were of a roan colour, and about a medium height, with a thick head, very disproportionate to the neck, large limbs, and a middling quantity of mane. These horses have an exceeding hard trot; they are very restive, bear on the bridle, and very often free themselves from it, and take to flight.

The number of horned cattle in Kentucky is very considerable: there are frequently forty or fifty at a plantation. Those who deal in them, buy them lean, and send them in droves of two or three hundred to Virginia, where they sell them to the graziers, on the banks of the Potowmack, who afterwards fatten them for the markets of Baltimore and Philadelphia. The price of a good milch cow, in Kentucky, is ten or twelve piasters. Milk diet is, in a great measure, the food of the inhabitants. The butter, which is never consumed in the country, is put into barrels, and exported by the river, and afterwards sent to the West Indies.

There are very few sheep reared; for, though I travelled upwards of two hundred miles through this state, I saw but four plantations at which there were any. Their flesh is not in much esteem, and the wool is of the same quality as that of the sheep in the eastern states. I shall observe here that the greatest number are reared in that of Rhode Island.

Of all the domestic animals, pigs are the most numerous. Every inhabitant keeps some, and several have as many as a hundred and fifty or two hundred. These animals do not quit the forests, where they always find food, particularly in autumn and winter. They become extremely wild, and keep together in bodies. When surprized, or attacked by a dog, or any other animal, they either fly with speed, or, forming into a circle, unite for their mutual defence. They have a compact body, medium height, short legs, and upright ears. Each person knows his own by the particular manner in which he cuts their ears. Sometimes they penetrate into the depths of the forests, and do not re-appear for several months; they are, however, accustomed to return to the plantations occasionally, by feeding them with maize once or twice a week. It is surprizing that in a country of such immense extent, covered with forests, and, comparatively, so thinly inhabited, and with so few noxious animals, these pigs have not multiplied in such a manner as to become entirely wild.

In all the western states, and also in those to the east of the Allegany mountains, at a distance of two hundred miles from the sea, it is necessary to give salt to the cattle. Without it, whatever food is given to them, they will not fatten, and it is a want, so imperious upon them, that they come of themselves to the house-door, every week or fortnight, in quest of it, and will spend whole hours in licking the manger on which a few pinches have been sprinkled. This desire is most manifested by the horses, perhaps because it is most frequently given to them.

Salt provisions is another important article of commerce to Kentucky. In the table quoted above, the quantity exported, in the first six months of the year 1802, is stated to have been two hundred and seventy-two thousand weight of smoked pork, and two thousand four hundred and eighty-five barrels of salted pork.

Notwithstanding the superabundance of grain raised in this country, there is scarcely an individual who rears poultry. This branch of domestic economy would, however, add nothing to their expenses, and at the same time, make an agreeable variation in their food. Two principal causes seem to prevent this: the first is that the use of salted meats, (a use to which the cutaneous diseases, so frequent among them, may be attributed), give them a distaste for this sort of provisions, which they, perhaps, find too insipid; the second is, that the fields of maize, which are usually contiguous to the dwelling-houses, would be exposed to great devastations, the inclosures with which they are surrounded being only calculated to keep out the cattle and pigs.

The inhabitants of Kentucky, as has been already mentioned, are, almost all, originally from Virginia, and particularly from the most remote parts of that state, and, with the exception of the lawyers, physicians, and a few of the citizens, who have received an education suitable to their professions, in the towns on the Atlantic, retain the manners of the Virginians. With them, a passion for gaming and spirituous liquors is carried to excess, and sanguinary conflicts are frequently the consequence. They meet often at the taverns, particularly during the session of the courts of justice, when they pass whole days there. Horses, and the law-suits, are the usual subjects of their conversation. If a traveller arrives, his horse is valued as soon as they can perceive him. If he stops, they offer him a glass of whiskey, and a multitude of questions follow. Where did you come from? Where are you going to? What is your name? Where do you reside? Your profession? Have the inhabitants of the country you have passed through any fevers? &c. These questions, which are repeated a thousand times, in the course of a long journey, at length become tiresome; but, with a little address, it is easy to stop them. Besides they have no other motive for them but that curiosity which is so natural to persons living retired, in the midst of woods, who scarcely ever see a stranger. They are never dictated by mistrust; for, from whatever part of the world a stranger comes to the United States, he may enter all the sea-ports and principal towns, remain in them, or travel, as long as he pleases, through every part of the country, without any public officer inquiring who he is, or what are his inducements for coming there.

The inhabitants of Kentucky are very willing to give strangers the information they require respecting the country in which they reside, and which they consider as the best part of the United States: as that in which the soil is most fertile, the climate most salubrious, and where all who have come to settle, were led by the love of liberty and independence. In their houses they are decent and hospitable; wherefore, in the course of my journey, I preferred lodging with them, rather than in the taverns, where the accommodation is frequently worse and much dearer.

The women seldom interfere in the labours of the field: they remain at home, assiduously engaged with the cares of the house, or employed in spinning hemp or cotton, which they afterwards make into cloth for the use of the family. This work alone is considerable, for there are few houses in which there are not four or five children.

Among the different sects which exist in Kentucky, those of the methodists and anabaptists are the most numerous. The religious spirit has, within seven or eight years, acquired a new degree of strength here; for, independently of the Sundays, which are scrupulously observed, they meet, during the summer, in the course of the week, to hear sermons, which last for several days in succession. These meetings, which often consist of two or three thousand persons, who come from ten or twelve miles round, take place in the woods. Each one brings his own provisions, and they pass the night round fires. The ministers use great vehemence in their discourses. Frequently, in the middle of these sermons, the heads of some of the congregation are lifted up, their imaginations exalted, and they fall down, inspired, exclaiming, *Glory! Glory!* It is chiefly among the women that these inspirations take place. They are then taken from among the crowd, and put under a tree, where they lie extended for a long time, uttering deep sighs.

There are some of these assemblies at which as many as two hundred will fall in this manner, so that a number of assistants are employed to help them. While I was at Lexington, I attended one of these sermons. Those who are best informed differ from the opinion of the multitude with respect to this species of extacy; which frequently draws on them the appellation of *bad folks*. But this is the extent of their intolerance. When returned from the sermon, religion seldom forms a subject of conversation among the citizens. Although divided into different sects, they live in the greatest harmony, and when an alliance is projected between families, difference of religion never occasions any obstacle: the husband and wife follow the worship they approve; as do their children when they are come to maturity, without the least opposition from their parents.

In all the western country, the children are punctually sent to schools, where they are taught reading, writing, and the elements of arithmetic. These schools are supported at the expense of the inhabitants, who procure masters as soon as the population and their abilities enable them: it is therefore very uncommon to meet with an American who is unable to read and write. On the Ohio, and in the Barrens, where the settlements are very widely dispersed, the inhabitants have not yet been able to procure this advantage, which is an object of solicitude to every head of a family.

CHAP. XXI.

Nashville.—Its commercial Relations.—Information relative to the Establishment of the Natches.

NASHVILLE, the principal and the oldest town of this part of Tennessee, is situated on the river Cumberland, the banks of which, in this place, are formed of a mass of lime-stone, upwards of sixty feet in height. With the exception of seven or eight brick houses, the remainder, consisting of about one hundred and twenty, are built with planks, and dispersed over a space of five-and-twenty or thirty acres, in a spot where the rock is almost bare. No water can be obtained, without making a very long circuit to reach the side of the river, or descending a very steep and dangerous path. While I was there, one of the inhabitants was endeavouring to perforate the rock to make a well, but he had not dug many feet, and the great hardness of the stone rendered the work long and difficult.

This small town, although it has been built fifteen or sixteen years, does not contain any manufacture or public establishment. There is, however, a printing-office, which publishes a newspaper once a week. They are now engaged in the establishment of a college, for the endowment of which, some rents and other revenues are appropriated: but it is still in its infancy, only seven or eight young men being yet assembled, under one professor.

The price of labour is higher in this town than at Lexington, and there is a similar disproportion between this price and that of provisions. Here are twelve or fifteen stores, which are supplied either from Baltimore or Philadelphia; but they appeared to me to be worse stocked than those of Lexington, and the goods, though dearer, were also of an inferior quality. This high price is partly to be attributed to the expense of the carriage, which is more considerable, on account of the greater distance which the boats intended for Tennessee have to go on the Ohio. In fact, after having passed Limestone, the place of disembarkation for Kentucky, and which is four hundred and twenty-five miles from Pittsburgh, they have still to make a passage of six hundred and nineteen miles to the mouth of the river Cumberland, and a hundred and eighty miles, up that river, to reach Nashville; which makes the total distance from Philadelphia fifteen hundred and twenty-one miles, twelve hundred of which are by water. Some traders also get their commodities from New Orleans, from whence the boats come up the Mississippi, Ohio, and Cumberland. This last distance is twelve hundred and forty-three miles; that is to say, a thousand miles from New

Orleans to the mouth of the Ohio; from thence, sixty-three miles to that of the Cumberland, and a hundred and eighty miles on this river to Nashville.

There are very few planters who undertake the exportation of their own produce, consisting principally of cotton: most of them sell it to the merchants of Nashville, who send it by the river to New Orleans, whence it is forwarded to New York or Philadelphia, or exported directly to Europe. These merchants, like those of Lexington, do not always pay money for the cotton which they buy, but oblige the planters to take goods in exchange, which increases their profits very much. A great deal of it is also sent by land into Kentucky, where each family requires a supply to make such stuffs as they are in want of.

When I was passing down, in 1802, they were sending cottons by the Ohio to Pittsburgh, for the first time, to be afterwards dispersed through the back parts of Pennsylvania and Virginia. I met the boats loaded with it near Marietta; they were pushed up the river with a pole, and went about twenty miles a day. Thus those parts of the western states which are farthest asunder, are cemented by commercial relations, of which cotton is the basis, and the Ohio the link of communication; and the results of this intercourse will give a greater degree of prosperity to this part of Tennessee, and secure to its inhabitants very superior advantages over those of Kentucky and the Ohio, the territorial productions of which are not of ana ture to meet with a great sale at home, or in the neighbouring countries, and must therefore be sent to New Orleans.

I had a letter from Doctor Brown of Lexington, for Mr. W. P. Anderson, a gentleman of the law, at Nashville, who received me in the most obliging manner. I am also indebted to him for an acquaintance with several other persons, and among them, Mr. Fisk of New England, president of the college, with whom I had the pleasure to travel to Knoxville. The inhabitants have a frank and unceremonious character. On the day of my arrival, I had hardly dismounted when some of them, who happened to be at the tavern where I stopped, invited me to visit them at their homes.

All the inhabitants of the western country who go to New Orleans by the river, on their commercial concerns, and return by land, pass through Nashville, which is the first town they arrive at after leaving the Natches. The distance between them is six hundred miles, and is entirely uninhabited; they are therefore obliged to carry provisions for the whole journey on horseback. It is true, they pass through two or three of the villages of the Chicasaw Indians, but, instead of being able to procure any thing in them, the savages are so ill supplied themselves, that it is not always easy to avoid being obliged to allow them to participate in what they have. Several persons, who have travelled this road, informed me that, for a distanco of four or five hundred miles from the Natches, the country is very even; that the soil is sandy, partly covered with pines, and not well adapted for any species of culture; but that the sides of the river Tennessee are, on the contrary, exceedingly fertile, and even superior to the richest districts of Kentucky and Tennessee.

The settlement of the Natches, which is known by the name of the *Mississippi territory*, daily acquires a new degree of prosperity, notwithstanding the insalubrity of the climate, which is such that three-fourths of the inhabitants are annually affected with intermitting fevers, during the summer and autumn: the great profit, however, arising from the culture of the long-woolled cotton (*coton à longue soie*), draws a number of emigrants to it, and the population already amounts to five thousand whites, and three thousand negro slaves.

The road leading to the Natches was only a path, winding through these immense forests; but the federal government is making a new one, which is on the point of being completed, and which will be one of the finest in the United States, as well for its breadth, as for the solidity of the bridges built over the small rivers which cross it. To these advantages, it will add that of being shorter than the other by nearly a hundred miles. Thus, in a short time, a carriage may travel through the western country, from Boston to New Orleans, a distance of upwards of two thousand miles.

CHAP. XXII.

Departure for Knoxville.—Arrival at Fort Blount.—Observations on the drying up of the Rivers during the Summer.—Plantations on this Road.—Fertility of the Soil.—Excursions on Cumberland River in a Canoe.

ON the 5th of September I left Nashville to proceed to Knoxville, with Mr. Fisk, who was sent by the state of Tennessee to fix, in concert with the commissioners from Virginia, the boundaries between the two states in a more accurate manner. We arrived on the 9th at Fort Blount, built on the river Cumberland, seventy miles from Nashville. On the road we stopped with different friends of Mr. Fisk; amongst others, with General Smith, one of the oldest inhabitants of this country, where he has resided sixteen or seventeen years. America is indebted to him for the best map of this state, which is to be found in the *Geographical Atlas*, published by Matthew Carey, a bookseller at Philadelphia. He acknowledged, however, that this map, which has been some years laid down, is imperfect in many points. The general is possessed of a fine estate, cultivated in maize and cotton: he has also a well-conducted distillery, where he makes peach brandy, which he sells for a piaster per gallon. He employs his leisure in chemistry. I observed that he had English translations of the works of Lavoisier and Fourcroy.

We also, on our journey, visited General Winchester, who was engaged in finishing a stone house, very elegant for the country; it contains four large rooms on the ground-floor, a first floor, and an attic story. The carpenters had been fetched from Baltimore, a distance of near seven hundred miles. The stone is of a calcareous nature; there is not any other kind in this part of Tennessee, except the rounded flints which are found in the beds of some of the rivers, and originate in the mountainous region, from whence they are brought by the strength of the torrents. But there are few of the inhabitants who build in this way, on account of the price of labour, masons being still scarcer than carpenters and joiners.

Not far from the general's house runs a river of forty or fifty feet in breadth, which we crossed dry-shod. Its banks, in some places, are upwards of five-and-twenty feet in height, and the bottom of its bed is formed by one single channel, furrowed with smaller ones, intersecting each other, and three or four lines broad, by as many in depth. The small quantity of water which it had at this time trickled through these furrows; but on the contrary, in the winter, the waters are so abundant that by means of a sluice, a sufficient quantity is diverted from it to turn a mill, which stands upwards of thirty feet in height. We had already passed several of these rivers, which we could step over, but on which ferry-boats are necessary at that season.

A few miles from General Winchester's house, and out of the road, is situated a small town, which has been built some years; the name of *Cairo* was given to it in commemoration of the capture of Cairo by the French.

Between Nashville and Fort Blount, the plantations, though always sequestered in the midst of the woods, are, however, so near each other on the road, that it is very uncommon not to see one in every two or three miles. The inhabitants reside in good log-houses; most of them have negroes, and appear to live happy, and in plenty. Through all this space the soil is slightly unequal, sometimes entirely level, and in general excellent; the forests are, consequently, very beautiful. This great fertility is more particularly observable about fifty miles from Nashville, and a few miles before coming to Major Dixon's, at *Dixon's Spring*, where I stopped a day and a half

There are considerable masses of the forests in the environs, which are filled with the reeds or canes of which I have spoken above, and which grow so close to each other that a man concealed in them cannot be perceived at ten or fifteen feet distance. Their tufted foliage forms a mass of verdure which recreates the sight in the depths of these solitary and silent forests. I have already mentioned that, in proportion as new plantations are formed, these reeds disappear in a few years, because the cattle prefer their leaves to every other species of vegetable, and destroy them more by breaking the stems of the plants than by browzing their tops. The pigs also contribute to their destruction, by turning up the earth in search of the young roots.

Fort Blount was constructed about eighteen years ago, to protect the emigrants, who came to settle at that time in Cumberland, against the savages, who made incessant war upon them, to remove them; but a peace having been concluded, and the population being greatly augmented, they are incapacitated from doing them any further injury, and the fort has been destroyed. At present there is a good plantation on the spot, which belongs to Captain William Sampson, with whom Mr. Fisk usually resides. During the two days we stopped with him, I made excursions for several miles up and down the river Cumberland, in a canoe. This method of examining natural productions, always in greatest variety on the banks of rivers, is more convenient than any other, especially when, as in this case, the river is confined within enormous rocks, so steep that a man on foot cannot approach them without great difficulty. In these excursions I enriched my collection with the seeds of several trees and plants peculiar to the country, and with various other subjects of natural history.

CHAP. XXIII.

Departure from Fort Blount for West-Point, across the Wilderness.—*Botanical Excursions on Roaring River.—Appearance of the Sides of this River.—Saline Products found here.—Cherokee Indians.—Arrival at Knoxville.*

ON the 11th of September we went from Fort Blount to Blackborn, which plantation, situated fifteen miles from this fort, is the last possessed by the whites before reaching the line, which, on that side, separates the territory of the United States from that of the Cherokee Indians. As far as West-Point, on the Clinch, this boundary is an uninhabited country, of eighty miles in width, bearing the name of the *Wilderness*, and of which the mountains of Cumberland occupy a considerable part. Mr. Fisk being obliged to attend the court of justice which was held some miles off, in the county of Jackson, we postponed crossing the *Wilderness* for a few days; and I took the opportunity of his absence to visit Roaring River, one of the branches of the Cumberland. This river, which is from ten to fifteen toises in breadth, receives its name from the confused noise heard for upwards of a mile, and occasioned by the falls of the water, produced by the sudden depressions of its bed, which is formed of large flat stones, contiguous to each other. These falls, six, eight, or ten feet in height, are so close, that several of them are met with in a space of fifty or a hundred toises. Large stones, five or six feet in diameter, and rounded on all sides, are seen lying in the middle of the river, without a possibility of ascertaining how they were conveyed there.

The right bank of Roaring River is, in some places, of the height of eighty or a hundred feet, and, at this elevation, is overtopped by rocks, which project fifteen or twenty feet, and cover thick beds of ferrugineous schistus, lying horizontally.

The laminæ, of which they are composed, have so little adhesion, and are so friable, that, on the slightest touch, they break off in pieces of a foot long, and fall spontaneously to powder, by which means deep excavations are at length formed under these rocks. On the plates of schistus least exposed to the water and the light, a kind of white efflorescence appears, of an extreme tenuity, and greatly resembling snow.

There are also on the banks of this river, and in other parts of Cumberland, deep caverns, in which are found masses of an aluminous substance, so near the degree of purity required for the operations of dying, that the inhabitants not only collect it for their own use, but they also export it to Kentucky. They cut it in pieces with a hatchet; but there is not any of them acquainted with the processes employed in the old continent for preparing the different substances, as they are met with in commerce.

Several large rivulets, after meandering through the forests, terminate on the steep banks of this river, whence they are tumultuously precipitated into its bosom, forming magnificent cascades of several toises in breadth. The permanent humidity produced here by these cascades gives birth to a multitude of plants, which grow among the thick moss spread over the rock, and forming a very beautiful carpet of verdure. These various causes render the sides of the Roaring River extremely cool, and give them an appearance totally different from those of the other rivers which I had hitherto visited. Here also are seen a variety of trees and shrubs, not met with elsewhere. I found here, at the same time, the *Magnolia Auriculata*, *Macrophilla*, *Cordata*, *Acuminata*, and *Tripetala*. The fruits of these trees, as remarkable for the beauty of their flowers as for their superb foliage, were at maturity. I gathered the seeds of them, to propagate them in France, and add to the embellishments of our gardens. These seeds easily become rancid, and I endeavoured to remedy this inconvenience by putting them into fresh moss, which I changed every fortnight, until my return to Carolina, where I persevered in the same precautions, until the period of my embarkation for Europe. I have since had the satisfaction of finding that my care was not bestowed in vain, and that, by this means, I have succeeded in preserving their germinating property.

Major Russel, with whom I went to lodge after leaving Blackborn, and where I was rejoined by Mr. Fisk, very obligingly supplied us with the provisions necessary for our forced march of two days, through the territory of the Cherokees. Notwithstanding the good intelligence now subsisting between the whites and these Indians, it is always prudent to form a company of five or six to cross it. However, as we were far from the usual place of rendezvous, at which travellers wait, we determined to set off alone, and arrived happily at West-Point. The country is very mountainous, and we were unable to go further than forty-five miles on the first day, though we did not stop until midnight. We encamped near a small river where there was plenty of grass, and, after having made a fire, lay down in our blankets, watching alternately, to enable our horses to graze more at large, being apprehensive of the savages, who sometimes steal them, notwithstanding the utmost precaution of travellers; for their address in this respect is beyond all imagination. On this day we saw nothing but wild turkies, in flocks of thirty or forty.

On the second day we met a party of eight or ten Indians, who were in quest of summer grapes, and chinquapins, a species of small chestnut, superior, in taste, to those of Europe. As we were not above twenty miles from West-Point, we gave them the remainder of our provisions, which was very pleasing to them. To them, bread is a great luxury, their common food being only deer's flesh roasted.

The road across this part of the Indian territory passes over the Cumberland mountains: it is as wide and as well beaten, as those in the environs of Philadelphia, on account of the great number of emigrants who travel it, as they go to settle in the western country. It is, however, in some places, very bad, but not nearly so much so as that between Strasburgh and Bedford, in Pennsylvania; neither is it, like that, encumbered with enormous stones. Forty miles from Nashville, we met some wealthy emigrants, travelling in a carriage, followed by their negroes on foot, who had passed it without any accident. Small boards painted black, and nailed against the trees, at every third mile, show travellers how far they have gone.

In this part of Tennessee the forests are composed of all the species of trees, which belong more particularly to the mountainous districts of North America, such as oaks, maples, and walnuts. Pines also abound in places where the soil is inferior. But what appeared to me very extraordinary, was, to see parts of the woods, of several miles in extent, where all the pines, which amounted to, at least, a fifth of the white persons who had died in the preceding years, and still retained their withered limbs. It was impossible to discover the cause of this singular phenomenon, and could only learn that it occurs every fif- teen or twenty years [illegible] but [illegible]

¶ There is a palisaded fort at West-Point, built on a high hill, at the confluence of the rivers Clinch and Holstone. The federal government has a company of soldiers here, whose object is to keep the Indians in awe, and, at the same time, to protect them against the inhabitants of the frontier, whose misconduct frequently excites them to war. The object of these outrages is very often to dispossess them of their lands; but the government has guarded against this fruitful source of discord and war, by declaring all the lands occupied by the Indians within the limits of the United States, to be subject to the [illegible] domain [illegible] onward.

¶ The following facts will give an idea of the [illegible] character of some of these ſeveral Americans. One of them, in the neighbourhood of Fort [illegible], had built a house, as he had [illegible] from his travels, and penetrated a conſiderable diſtance into the Indian territory. [illegible], he was brought back by two of these [illegible]; they were not fifty paces from the house, when this man on perceiving them, shot one of them dead; the other took to flight, and related the news to his countrymen. The murderer was put in priſon, but was releaſed in a ſhort time, for want of proof of his crime, though he ſtood convicted in the public opinion. All the time he was kept in priſon the Indians ſuſpended the effects of their reſentment, in the hope that the death of their countryman would be avenged; but, ſcarcely were they informed of his enlargement, when they killed a white at more than one hundred and fifty miles from the place where the firſt murder had been committed. To this day it has been found impracticable to make the Indians, of whatever nation, comprehend that the [illegible] ſhould only be inflicted on the culpable: they believe that the murder of one, or of several of their nation, must be avenged by the death of an equal number of individuals belonging to the nation of him who occasioned the loss of their people. This is a custom which it is impossible to make them renounce, particularly if he who has been killed belonged to a family of distinction; for, among the Creeks and Cherokees, there exists a class superior to the commonalty of the nation. These Indians are above the middle size, well proportioned, and rather fleshy, considering the compulsory fasts they frequently endure, in pursuit of the animals whose flesh forms their chief sustenance. The rifle is the only fire-arms they make use of; they are very expert with it, and kill at a great distance. The common dress of the men consists of an European shirt, which they leave loose, and of a piece of blue cloth, half an ell in length, which serves them for breeches: they pass it between their thighs, and fasten the two ends to their girdle, before and behind. They wear long gaiters and shoes, or socks, of prepared deer's skin. On particular occasions some of them appear in a coat, waistcoat, and hat, but not breeches. The natives of North America have never been able to adopt this part of our dress. They leave only one tuft of hair, on the top of their heads, formed into several tresses, which hang down the sides of their faces, and very frequently the ends are decorated with feathers, or small pipes of silver. A great number of them perforate the gristle of the nose to put rings into it, and cut their ears, which are lengthened to two or three inches, by means of pieces of lead, hung to them, when they are very young. They paint their countenances red, blue, or black.

A man's shirt, and a short petticoat, form the dress of the women, who also wear gaiters and socks of deer's skin: they permit all their hair to grow, which, like that of the men, is of a jet black; but they do not pierce the nose, or cut the ears. In winter both men and women wrap themselves in a woollen blanket to protect themselves from the cold; this is an essential part of their baggage, and they always carry it with them.

There is a store near the fort, to which the Cherokees bring ginseng and furs, consisting principally of the skins of bears, deers, and otters: they receive in exchange, coarse stuffs, knives, hatchets, and the other articles which they are in want of.

I learnt at West-Point, from several people who make frequent journies among the Cherokees, that for some years past they have attended to the cultivation of their lands, and have made great progress. Some of them have good plantations, and also negro slaves. Some of the women spin, and weave cotton stuffs. The federal government devotes a sum annually to supply them with the implements of agriculture, and of different trades. Compelled to pursue my journey, I was unable to penetrate into their country, as I had at first proposed, and derived no advantage from the letters of recommendation which Mr. W. P. Anderson, at Nashville, had given me, to that effect, for the officers of the garrison at the fort.

It is reckoned thirty-five miles from West-Point to Knoxville. At a mile from West-Point, the road goes through Kingstown, consisting of about forty log-houses. Afterwards it is continued, for eight or ten miles, over a rough stoney land, but which is very plentifully covered with grass. The trees within this space grow at twenty or thirty paces from each other, which makes it probable that this district will pass from the state of a meadow to that of a forest. Beyond this distance the soil becomes better, and the plantations are nearer together.

CHAP. XXIV.

Knoxville. — Commercial Relations. — Trees growing in its Environs.—Conversion of some Parts of the Meadows into Forests. River Nolachucky.—Greensville.—Arrival at Jonesborough.

KNOXVILLE, the seat of government of the state of Tennessee, is situated on the river Holston, which, at this place, is nearly a hundred and fifty toises in width. The houses, in number about two hundred, are, almost all, of wood. Although it has been built eighteen or twenty years, this little town has not yet any kind of establishment, or manufacture, except some tanneries. Commerce, however, is brisker here than at Nashville. The stores, of which there are fifteen or twenty, are also better provided. The merchants obtain their supplies, by land, from Philadelphia, Baltimore, and Richmond, in Virginia, and, in return, send, by the same channel, the productions of the country, which they buy from the farmers, or take in exchange for their goods. Baltimore and Richmond are the towns with which they have the greatest dealings. The price of carriage from Baltimore is six or seven piasters the quintal. It is reckoned five hundred miles from this town to Knoxville; six hundred and forty to Philadelphia; and four hundred and twenty to Richmond.

They also send flour, cotton, and lime to New Orleans, by the river Tennessee; but this way is not much frequented in commerce, the navigation of this great river being very much interrupted, in two different places, by shoals filled with rocks. It is reckoned about six hundred miles from Knoxville to the efflux of the Tennessee into the Ohio, and thirty-eight miles from thence to that of the Ohio, into the Mississippi.

We stopped at Knoxville, at Haynes's, who keeps the best tavern, the sign of the General Washington. Travellers, with their horses, are accommodated here at the rate of a piastre per day. The accommodations are very good, but the price is rather too high, for a country, the situation of which is by no means favourable for the sale of their provisions, which must be sent to a great distance, through countries which supply those of the same kind, and have the same markets for them. This high price arises from a desire of getting rich in a short time, a desire which is general in the United States, where every man who exercises any profession or art whatsoever, is anxious to get a great deal by it, and is not contented with a moderate profit, as in Europe.

There is a newspaper printed at Knoxville, which appears twice a week, and is edited and published by Mr. Roulstone, the countryman and friend of my fellow-traveller, Mr. Fisk. It may be observed that the greater part of the emigrants from New England are much superior to the others in their morals, their knowledge, and their industry.

On the 17th of September I took my leave of Mr. Fisk, and directed my steps towards Jonesborough, a hundred miles from Knoxville, and at the bottom of the high mountains which separate North Carolina from the state of Tennessee. At leaving Knoxville the soil is uneven, stoney, and bad; this may be easily seen by the great quantity of pines, *Pinus mitis*, found in the forests. Here are also an abundance of chinquapin oaks, *Quercus prinus Chinquapin*; they seldom grow higher than three feet, and this year some of them were so loaded with acorns, that they were bent down to the ground. The sorrel-tree, *Andromeda arborea*, is also very common; this tree, which rises to the height of forty feet in the mountains, would, from its elegant panicles of white flowers, form one of the most beautiful ornaments of our gardens: its leaves are very acid, and some of the inhabitants give them the preference to sumach for dying black.

I crossed the river Holston at Macby, fifteen miles from Knoxville: here the soil becomes better, and the plantations are nearer together, although still so distant as not to be within sight of each other. At a short distance from Macby the road, for the space of a mile or two, runs beside a coppice, very thickly set with trees, the largest clumps being twenty or twenty-five feet across. I had never seen any part of a forest in a similar state; and I made this observation to the inhabitants of the country, who informed me that this spot was formerly part of a *Barren*, or meadow, which had become naturally re-covered with wood within the last twelve or fifteen years, since the bad custom of setting fire to them, as is practised in all the southern states, had been discontinued. This example seems to prove, that the extensive meadows of Kentucky and Tennessee are indebted to some conflagration, which had consumed the forests, for their origin, and that they are preserved in that state by the custom, which still prevails, of setting fire to them annually. When on these occasions chance preserves any spots of them for a few years from the ravages of the flames, the trees spring up again; but, being extremely close, the fire, which at length catches them, burns them completely, and reduces them to the state of meadows again. Hence it may be concluded that, in these countries, the meadows must continually encroach upon the forests; and, in all probability, this was the case in Upper Louisiana and New Mexico, which are only vast plains, to which the savages set fire annually, and where there is not any tree.

On the first day I stopped in a place where the majority of the inhabitants were Quakers, who had come fifteen or eighteen years before from Pennsylvania. The one with whom I lodged had a good plantation, and his log-house was divided into two apartments, which is very uncommon in this country. Some very fine apple-trees were planted round the house, which, although raised from seeds, produced fruit of extraordinary size and excellent quality: this is another proof how well these countries are adapted for the culture of fruit-trees. Here, as in Kentucky, the preference is given to the peach, on account of the brandy made from it. At my host's I met with two families of emigrants, consisting together of ten or twelve persons, who were going to settle in Tennessee. Their torn garments, and the bad plight of the children, who followed barefooted, and in their shirts, were indications of their poverty; a very uncommon occurrence in the United States. The riches of the inhabitants of the western country does not, however, consist in money; for I am well convinced that a tenth of them do not possess a single piaster: but each man lives on his own freehold, and gathers from it an abundance of every necessary provision; and the money arising from the sale of a horse or a few cows is always more than sufficient to procure him all those secondary articles, which come from the English manufactures.

On the following day I passed near an *iron work*, situated thirty miles from Knoxville, and stopped a short time to take a specimen of the ore. The iron obtained from it is said to be of an excellent quality. At this place the road divides into two branches, both leading to Jonesborough; but, as I was desirous of seeing the banks of the river Nolachuky, celebrated in this country for their fertility, I took that to the right, although it is a little longer, and less frequented. Six or seven miles from the iron-work small rock crystals are found on the road, two or three lines in length, and of the most beautiful transparency. The facets of the pyramids, which terminate the two extremities of the prism, are parallel to each other; they are uncombined, and disseminated in a reddish, slightly argillaceous land. In less than ten minutes I collected forty of them. When I arrived on the banks of the Nolachuky, I did not discover any species of tree or plant which I had not seen elsewhere, except tulip-trees, and horse-chestnuts, with yellow flowers, of an uncommon height. Some of the tulip-trees were five or six feet in diameter; they were perfectly straight, and wholly destitute of branches, to the height of thirty or forty feet from the ground.

On the 21st I arrived at Greenville, which does not contain more than forty houses, built of squared beams, arranged like the trunks of trees of which the log-houses are formed. It is twenty-five miles from hence to Jonesborough. In the interval the country is rather hilly; the soil is more adapted to the culture of wheat than of maize, and the plantations on the road are at a distance of three miles from each other.

Jonesborough, the last town in Tennessee, contains about a hundred and fifty houses, built of planks, and lying on the two sides of the road. Here are four or five stores, and the merchants who keep them have dealings with Baltimore and Richmond. Every article of English manufacture is sold very dear here, as well as at Knoxville. A newspaper, in large folio, is published here once a week. Periodical papers are hitherto the only works which have been printed in those towns or villages lying to the westward of the Alleganies, where printing-offices are established.

CHAP. XXV.

General Observations on the State of Tennessee.—Of the Rivers Cumberland and Tennessee.—What is meant by East Tennessee or Holston, and West Tennessee or Cumberland.—First Establishments in West Tennessee.—Native Trees of the Country.

THE state of Tennessee is situated between 35° and 36° 30′ of latitude, and 80° and 90° 30′ of longitude. Its boundaries are: to the north, Kentucky; to the south, the territory reserved for the Cherokee and Chactaw Indians; to the west, the Ohio; and to the east, the Allegany mountains, which separate it from Virginia and North Carolina. Its extent is nearly three hundred and sixty miles in length, by about a hundred and three miles in breadth.

Before 1796, the period of its admission into the union, this country formed a part of North Carolina. Its two principal rivers are the Cumberland and the Tennessee, which fall into the Ohio, at a distance of eleven miles from each other, and are separated for nearly their whole course by the Cumberland mountains.

The Cumberland river, described in the French maps, and known to the French Canadians by the name of the river Shavanon, takes its rise in Kentucky, among the mountains which separate it from Virginia. Its course is about four hundred and fifty miles; in winter, and in spring it is navigable as far as three hundred and fifty miles from its efflux; but, in the summer, it cannot be ascended more than fifty miles above Nashville.

The river Tennessee, called by the French Canadians, the Cherokees' river, is the largest of all those which fall into the Ohio. Its commencement may be fixed at West Point; it is formed there by the junction of the rivers Clinch and Holston, which take their rise in that part of the

Allegany mountains lying in Virginia, and are each eighty or a hundred toises wide at their junction. They are both navigable for a great distance, and particularly the Holston, which is so for two hundred miles. The French Broad River, one of the principal branches of the Holston, receives the waters of the Nolachuky, which is twenty or five-and-twenty toises in width, and is navigable in the spring. Thus the Tennessee, with the Holston, has, in the whole, a navigable course of near eight hundred miles; but the navigation is interrupted for six months in the year by the *muscle shoals*, a species of sand banks, covered with rocks, which are met with in its channel about two hundred and fifty miles above its efflux into the Ohio. From West-Point, the banks of this river are almost wholly uninhabited. The meaning of the name Tennessee, which it bears, is unknown to the Cherokees and Chactaws, who possessed this country before the whites. Mr. Fisk, who had had much intercourse with these Indians, could obtain no information respecting it; and it is very probable that this name was given to it by the nation which the Cherokees succeeded.

"The Cumberland Mountains are only a prolongation of Laurel Mountain, which is itself one of the principal links of the Allegany chain. On the confines of Virginia these mountains run more to the west, and, by the direction which they take, intersect the state of Tennessee obliquely, which is thus divided into two parts, *East* and *West Tennessee*; which were originally known by the names of the establishments of Holston and of Cumberland, and have a very different appearance, both from the nature of their soils and the productions they yield.

West Tennessee comprises two-thirds of the state; it rests chiefly on a bank of a uniform calcareous nature, the strata of which are horizontal. The bed of vegetable earth with which it is covered seems, in general, not so deep as in Kentucky, and partaking more of an argillaceous nature; it is commonly of a deep brown colour, and without any mixture of stoney substances. The forests spread over the face of the country show how favourable the soil is to vegetation; for all the trees attain to a very great diameter. Iron mines are as scarce here as in Kentucky; and, if any new ones have been discovered, they are already in work; for the iron imported from Philadelphia and Holston bears a very high price.

The secondary rivers, which in this part of Tennessee all fall into the Cumberland, are almost wholly dry in summer; and it is very probable that, when the population shall be more numerous, and plantations be formed at a distance from their banks, the want of water will be felt in this district even more severely than in Kentucky: there are, however, large brooks or creeks, which issue from deep excavations, lying at the bottom of the low hills, found in different places. It has been observed, that the springs of this description yield very good water, and never dry up, though they are not so large in the summer. At their issuing from these caverns they are sometimes accompanied by a current of air, strong enough to extinguish a light. I noticed this particularity at the source of the brook which bears the name of Dixon's Spring, and of another, four miles from Nashville.

It was in the year 1780 that the whites first attempted to cross the Cumberland Mountains, and to settle in the environs of Nashville; but the emigrants did not come here in great numbers before 1789. For several years they were obliged to maintain a sanguinary war with the Cherokee Indians; and, as lately as 1795, the establishments of Holston and Kentucky had no intercourse with those in Cumberland, except by caravans, in order that they might cross the extensive uninhabited country between them in safety; but, for five or six years, since peace has been made with the natives, the communication between these countries is perfectly established, and, although not much frequented, it may be travelled with as great security as any part of the Atlantic states.

This country having been peopled since Kentucky, measures were taken from the first to avoid the great confusion which exists with respect to the rights of property in the latter state; consequently, the titles here are considered as more valid, and much less liable to be disputed. This reason, the extraordinary fertility of the soil, and a milder temperature, are so many motives which attract the emigrants from the Atlantic states, rather to West Tennessee than to Kentucky. Already the number of inhabitants is estimated at thirty thousand, and five or six thousand negro slaves.

With very few exceptions, the different species of trees and shrubs which constitute the bulk of the forests, are the same as those I saw in the most fertile parts of Kentucky. The *Gleditsia triacanthos*, honey locust, is, however, more common here: the Indians made their bows of the wood

[illegible]

[illegible] being anxious to know [illegible] twenty pounds weight of it to New York [illegible] the half of which was sent to the laboratory of Dr. [illegible], professor of chemistry, and the other to be forwarded to Paris, for the

Office of Agriculture attached to the ministry of the interior, for the purpose of ascertaining the degree of utility which may be derived from it. This tree seldom grows higher than forty feet, and thrives best on the Knobs, a species of little hills, the soil of which is very rich. Some of the inhabitants have remarked, that there is not a tree in the country which yields such an abundance of sap in the spring. The quantity it furnishes even exceeds that of the sugar maple, although the latter is double its bulk. The time of my residence at Nashville being that of the maturity of the seeds of this tree, I collected a small quantity, and brought them with me; they have almost all come up. Some of the stems are already twelve or fifteen inches in height. It is very probable that this tree may be acclimated in France, and that it will bear the cold of our winters, and the more so, because from what I have been told, the winters are often as severe in Tennessee, as that in the year XII. (1804.)

West Tennessee is less salubrious than Holston or Kentucky. A warmer and more humid temperature occasions intermitting fevers to be very prevalent here in the summer. The emigrants, in the first year of their establishment, and even travellers, are also, at this season, subject to an exanthematic affection, which makes them suffer severely, for ten or twelve days, from the extreme itching produced by a multiplicity of pimples, which first appear on the belly, and afterwards on the shoulders, arms, and thighs. This indisposition, with which I was attacked before I reached Fort Blount, yielded to a cooling regimen, and to bathing, which I practised for several days in the Cumberland and Roaring rivers. The name given to this disease in the country is the *Tennessee Itch*.

CHAP. XXVI.

Of the different Species of Culture in West Tennessee, and particularly of that of Cotton.—Domestic Manufactures of Cotton Stuffs encouraged by the Legislature of the State.—Method of taking [illegible] by [illegible].

WEST Tennessee, or Cumberland, being in a more southern latitude than Kentucky, admits of the culture of cotton; consequently the inhabitants attend chiefly to it, and do not cultivate much grain, hemp, or tobacco, beyond their own consumption.

The soil, which is fat and loamy, appears to be a recent decomposition of vegetable matter, and, for that reason, seems, at present, to be less suitable for the growth of wheat than those of maize; the crops of this grain are as abundant as in Kentucky: its stalks elongate to the height of eleven or twelve feet, and the ears, which appear at six or seven feet above the ground, are nine or ten inches long, and have a proportionate thickness. It is cultivated in the same manner, and used for the same purposes.

The crows, which are a real scourge to the Atlantic states, where, at three different periods, they ravage the fields of maize, and frequently render it necessary for them to be replanted as often, have not yet found entry in Tennessee; but it is probable that their appearance is only deferred, for they are already very destructive in Kentucky.

I shall also observe here, that the grey rats of Europe have not yet penetrated into Cumberland. They follow the establishments of the whites in these distant regions, and make their appearance in a few years after the country has been inhabited. At first, they show themselves in the small towns, from whence they spread into the plantations dispersed through the woods.

The culture of cotton, infinitely more lucrative than that of wheat or tobacco, is, as I have already said, the most practised in West Tennessee. There is scarcely an emigrant who does not begin to engage in it by the third year after his establishment. Those who have no negroes, cultivate it with the plough, nearly like maize, only taking particular care to weed and hoe it several times in the season. The others dispose their fields in parallel ridges, made with the hoe, and twelve or fifteen feet in height. It is calculated that a man, who has no other employment, is able to cultivate eight or nine acres; but the opening of the capsules taking place very rapidly, when it is ripe, it would not be possible for him to pick it by himself. A man and woman, with two or three children, may, however, easily cultivate four acres, independently of the maize necessary for their subsistence, and reckoning on a crop of three hundred and fifty pounds weight per acre, which, considering the extreme fertility of the soil, is very moderate, there will be produce of fourteen hundred pounds weight of cotton freed from the seed. Valuing it at the rate of eighteen piasters the quintal, the lowest price to which it fell, at the time of the last peace, when I was in the country, it gives two hundred and fifty-two piasters; from which, deducting forty piasters for the expenses of culture, there is a net produce of two hundred and twelve piasters: while the same number of acres, planted with maize, or sown with wheat, would only give fifty piasters, reckoning fifty bushels of maize per acre, or twenty-five bushels of wheat, valuing the maize at thirteen pence, and the wheat at six and twenty pence, the bushel, and admitting that a market can be found for it at that price, which is not always very easy. This slight sketch will show with what facility the poorest family may quickly acquire a certain degree of affluence in West Tennessee, particularly if after being five or six years established, they are enabled to purchase one or two negroes, and to increase the number gradually.

The species of cotton cultivated here is rather in higher estimation than that which is called Green-seed Cotton, of which it is only a slight variety.

The cotton stuffs fabricated in West Tennessee are very fine, and superior in quality to any which I had seen in the course of my journey. The legislature of this state, knowing the advantage of encouraging this species of industry, and, by so doing, diminishing the importation of English merchandise, of the same kind, have, for two years, awarded a prize of ten piasters to the woman, in each county, who shall exhibit the best manufactured pieces; for, in the summer, here, as well as in Kentucky, the wealthiest people, through patriotism or economy, wear garments of the stuffs fabricated in the country. They also find this the only method of keeping among them the little money which they have in circulation, and preventing it from passing to England.

The price of the best land does not yet exceed five piasters an acre in the environs of Nashville, and, at thirty or forty miles from that town it is not worth more than these prices; a plantation completely formed, containing two or three hundred acres, fifteen or twenty of which are cleared, and a log-house may be purchased at this period. The taxes are also lower in this state than in Kentucky.

Among the emigrants who annually come from the eastward to Tennessee, there are always some who have not the means of purchasing lands, but they find no difficulty in hiring them. The speculators, who are possessed of several thousand acres, not being displeased at getting a few settlers on their estates, which induces others to come into their neighbourhood; for the speculations in land, in the states of Kentucky and Tennessee, are only advantageous for those residing on the spot, and who, on the arrival of emigrants, can succeed in fixing them upon their possessions, which soon augments their value.

The terms on which they let them, are to clear and inclose eight or nine acres, to build a log-house, and to pay the proprietor eight or ten bushels of maize for each acre cleared. These agreements are made for six or eight years. By the second year the value of two hundred acres of land, adjoining to such a new establishment, rises thirty per cent. and this estate is purchased in preference by a new emigrant, who is sure of gathering, in the first year of his arrival, as much grain as is requisite for the wants of his family and his cattle.

There are fewer horses bred in this state than in Kentucky; nevertheless they are attentive to the improvement of the breed, and to crossing it with those of the latter state, from whence they procure very fine brood mares.

Although this country abounds in salt springs, none of them are yet worked, because the dearness of labour would raise the salt to a higher price than it is imported at, from the salt-works of Saint-Genevieve, in the Illinois, which supply Cumberland. It is sold for two piasters a bushel, weighing fifty or sixty pounds. Holston has its own salt-works.

CHAP. XXVII.

Of East Tennessee, or Holston.—Cultures.—Population.—Commercial Relations.

EAST Tennessee, or Holston, is situated between the highest part of the Alleganys, and Cumberland mountains: in length, it comprises an extent of nearly a hundred and forty miles; the principal differences between it and West Tennessee are that the lime-stone appears to lie deeper; that the beds of it, which form the mass, inclined to the horizon, are divided at small intervals, by strata of quartz; and, finally, that the country is watered by a great number of small rivers, descending from the neighbouring mountains, which cross it in all directions. The best land is on their banks: the remainder of the tract, which is almost every where intersected by hills, is of an indifferent quality, and produces only the white, red, quercitron, chinquapin and rocky oaks, intermixed with pines: and, as has been already observed, none of these species, with the exception of the *Quercus macrocarpa*, the over cup white oak, ever grow in the most fertile districts.

Maize also forms one of the principal branches of culture here, but it seldom grows to a greater height than seven or eight feet, and thirty bushels per acre is considered as a very good crop. The nature of the soil, which is rather stoney, seems better adapted to the growth of wheat, rye, and oats, which are, consequently, cultivated more here than in Cumberland. Cotton is not grown in any quantity, on account of the cold, which sets in very early. It may be inferred, from what has been said, that Holston is in every respect inferior in fertility to Cumberland and Kentucky.

To turn the superabundance of their grain to advantage, the inhabitants breed a great number of cattle, which they send a distance of four or five hundred miles to the maritime towns of the central and southern states. Very few of these animals are lost in the passage, although they have a great number of rivers to cross, and the country is nearly an uninterrupted forest, added to which they are extremely wild, from being accustomed to be almost always in the woods.

This part of Tennessee began to be inhabited in 1775, and its population has increased so much, that, at this time, the number of its inhabitants is estimated at seventy thousand, including three or four thousand negro slaves. In 1787, they attempted to form an independent state, under the name of the State of Franklin; but this project was abandoned. It is, however, very probable, and the subject is already agitated, that east and west Tennessee will, in the end, form two separate states, each of which will be augmented by a new addition of a part of the territory belonging at present to the Cherokee Indians; it is true the natives refuse to allow of any further cession, urging that their country is scarcely sufficient to supply beasts of chase for the subsistence of their families, but sooner or later they will be obliged to yield. This division of Tennessee is likely to take place very shortly, whether we consider it as according with the convenience, or with the enterprizing character of the Americans. It is rendered necessary, on the one hand, by the limits which nature herself has formed between the two countries in separating them by the high mountains of Cumberland, and, on the other, by the total difference in their commercial relations; for the trading concerns of Cumberland are carried on by the Ohio and Mississippi, while those of Holston are nearly all conducted by land with the sea-ports of the Atlantic states, since it has very little intercourse with New Orleans, by the river Tennessee, and hardly any with Cumber-

CHAP. XXVIII.

Departure from Jonesborough for Morgantown, in North Carolina.—Passage of the Iron Mountain.—Residence in the Mountains.—Passage of the Blue Ridges, and of the Mountains of Linneville.—Arrival at Morgantown.

ON the 21st of December, 1802, I left Jonesborough, to cross the Alleghanys, and proceed to North Carolina. Nine miles from Jonesborough the road divides into two branches, which rejoin fifty-six miles beyond the mountains. The left, which is passable for carriages, crosses the Yellow Mountain, and the other goes over the Iron Mountain. I followed the latter, which was described to me as the shortest. I travelled only nineteen miles this day, and came to lodge with a man named Cayerd, at Limestone Cove; where I arrived benumbed with cold, from the thick fog which prevails almost continually in the vallies adjoining to these mountains.

Seven miles before reaching this plantation, the road, or rather path, begins to be so little trodden, that the track is with difficulty distinguished among the various plants which cover the ground: it is also obstructed by forests of Rhododendrums, shrubs about eighteen or twenty feet in height, the twisted branches of which, interwoven with each other, continually retard the traveller, who is obliged to advance with a hatchet in his hand. The torrents which are to be crossed, also augment the difficulty and danger of the road, horses being very liable to be thrown down by the round loose flints, concealed by the eddy of the waters, with which the bottoms of these torrents are covered.

On the following day I had twenty-three miles to go without seeing a dwelling. Having procured correct information respecting the path I was to follow, and the marks, such as large rocks, or remarkable trees, by which I might know I had not erred, I left Limestone Cove at eight o'clock in the morning, and, in three hours, arrived at the summit of the mountain, which I recognized by several trees, marked on each of their sides, and in the same direction, to show the line of demarkation which separates the state of Tennessee from that of North Carolina. The distance from Limestone Cove to the summit of the mountain is reckoned two miles and a half, and the descent, on the other side, three miles. The declivity on both sides is so very steep, that it is difficult to sit on a horse, and half the way must be gone on foot. When I had reached the bottom of the mountain, I had again, as the day before, to cross forests of Rhododendrum, and a broad torrent, *Rocky Creek*, the winding course of which intersects the road twelve or fifteen times: each time I was compelled to go ten or fifteen toises up or down the middle of the torrent to find the continuation of the road on the other side, which is seldom directly opposite, and its commencement is frequently concealed by clumps of plants, or branches of trees, which have time to grow and extend themselves, because whole months elapse without a single traveller passing: at length I arrived happily at the end of my journey. I then perceived the imprudence I had committed, in exposing myself, without a guide on a road so little frequented, and where I every instant ran the hazard of going astray, on account of the subdivisions of the road which are finally lost, and where it would have been impossible to regain the right way without a perfect knowledge of the localities and disposition of the country, and of the obstacles which, continually occurring, obstruct the passage of a traveller, whose situation would soon become very critical from a want of food.

On the 23d I travelled two-and-twenty miles across a country covered with mountains, though not so high as those I had just passed; and I arrived at one Davenport's, who is owner of a good plantation on *Doe River*, a torrent thirty or forty feet wide, which falls into the Nolachuky. I had learnt the night before, from the person with whom I lodged, that my father had resided with Davenport, and that this man had been his guide in the mountains, when he traversed them to examine their productions. I was far from thinking that at the period when this honest man was entertaining me with an account of his former travelling companion, that I had lost a beloved father on the coast of the island of Madagascar, who died a victim to his zeal for the advancement of natural history.

I stopped eight days at Davenport's to rest myself after the journey of six hundred miles which I had just taken, and during this interval I examined the Blue Ridges which surround his plantation. On the 2d of October 1802, I resumed my journey, and directed my march to Morgantown, thirty-five miles from hence. Four miles from Doe River, I repassed the Blue Ridges. I reached the summit by a gradual slope, which is much longer and steeper on the east side, without, however, being impracticable for carriages. The passage of this mountain is reckoned four miles and a half.

Five miles from the Blue Ridges are the mountains of Linneville, which are not quite so high as the first, but steeper and more difficult to ascend. On the west side, the road which crosses them is incumbered with large flat stones which interrupt the passage, and render it very fatiguing. From the summit of these mountains, on which are few trees, an immense extent of mountainous country, covered with forests, may be discovered, and at their base alone, three small cleared spots, which form as many plantations three or four miles distant from each other.

It is twenty-five miles from the mountains of Linneville to Morgantown, where I arrived on the 5th of October. In this interval the country is hilly, and the soil very bad: for which reason there are only four or five plantations on the road. A mile before I reached it, I crossed the north branch of the Catabaw river, which at this place is forty-five or fifty toises broad, although its source is not more than fifty miles distant. The rain which had recently fallen in the mountains had produced a sudden flood, and the owner of the ferry, not thinking it would last long, had not launched the boat, so that I was compelled to ford the river. One of his children pointed out to me the different directions I was to take to avoid some large and deep holes which were concealed by the water.

CHAP. XXIX.

General Observations on this Part of the Chain of the Allegany Mountains.—Salamander found in the Torrents.—Bear-hunting.

IN Pennsylvania, and Virginia the Allegany mountains have the appearance of ridges, parallel to each other, but varying in their length. They are most frequently very close, forming narrow vallies; sometimes also the interval which separates them is twenty or thirty miles wide; then these spaces are filled with a multitude of hills of inferior elevation, unconnected with each other, and not in any way affecting the direction of the principal chains. On the confines of North Carolina and Tennessee, on the contrary, the Alleganys are insluated mountains, contiguous only at their bases; they also cover a much smaller extent of country, which is not estimated at more than sixty or seventy miles. The ridge which more particularly bears the name of the Allegany Ridge, in Pennsylvania, and of the Blue Ridge, in North Carolina, is the only one, which, being continued without interruption, divides the waters of the rivers which run into the Atlantic Ocean from those which swell the Ohio in its course. The height of this chain is, however, infinitely less than that of the neighbouring mountains. It is at this place that the Alleganys, which cross the United States for an extent of eight or nine hundred miles, have the greatest elevation. This is the opinion of the greater number of those who have emigrated to the confines of North Carolina, from the mountainous parts of Pennsylvania and Virginia, and all of whom are acquainted with the respective heights of these mountains. They place the *Great Father Mountain*, in the first rank, then the *Iron Mountain*, the *Yellow Mountain*, the

Black Mountain, and the *Table Mountain*, all of which are situated on the Western Waters. From the top of the Yellow mountain, the only one which is free from trees at its summit, all the others which have been named are discoverable.

In support of this observation, it may also be remarked, that between the 10th and 20th of September, the cold becomes so severe on the mountains that the inhabitants are obliged to have fires, which is not the case in any of those of Virginia, although they are some degrees farther north. And moreover, I have since seen in my father's notes, that he found trees and shrubs on the Yellow and Great Father mountains, which he never met with afterwards, except in Lower Canada.

Since the only data relative to the height of the Allegany mountains are the result of observations made in Virginia, it will be evident, from this short account, that there is not as yet any certainty as to their real elevation; it was this which determined me to point out the highest mountains, which must be visited to verify this assertion. They are about three hundred and sixty miles from Charlestown in South Carolina, and five hundred and fifty from Philadelphia.

The mineral kingdom exhibits little variety in these mountains. The mines which have been hitherto found here in the greatest abundance, are those of iron. They are worked with success, and the metal obtained from them is of a good quality.

In the mountainous parts of Pennsylvania and Virginia, the land, which is frequently stoney and arid, is of a bad quality. Here, on the contrary, the soil is free from stones, constantly fresh, and very fertile. This may be concluded from the vegetative force of the trees, among which we observed the red and quercitron oaks, the sugar-maple, the ash, the horse chestnut with yellow flowers, the *Magnolia accuminata* and *auriculata*, and the chestnut, which grows here to a prodigious height. The side of these mountains which looks towards the north is sometimes clothed, exclusively, with the *Kalmia Latifolia*, calico tree, of ten or twelve feet in height. They frequently fill spaces of two or three hundred acres, which, at a distance have the appearance of an agreeable meadow. This shrub is acknowledged to have the most beautiful flowers of any which is known.

In the large woods, the surface of the soil is covered with a species of wild peas, which rise three feet above the earth, and of which the cattle are very greedy. They prefer this pasture to every other, and when removed from it, they fall away, or make their escape to return to it.

These mountains are getting inhabited very rapidly. The salubrity of the air, the goodness of the water, and more especially, these wild peas for pasturing their cattle, are the causes which attract new settlers hither.

Lands of the first class are sold at the rate of two piasters, and the taxes do not exceed a halfpenny per acre. Maize, wheat, rye, oats and peach-trees are the only articles cultivated.

A species of salamander is found in the

torrents, called by the inhabitants the *Alligator of the Mountains*; some of them are two feetlong. The specimen described in the *Nouveau Dictionnaire d'Histoire Naturelle*, published by Deterville, was taken in Doe River by my father.

The inhabitants of these mountains have the reputation of being very expert hunters. Towards the middle of Autumn, almost all of them hunt the bears: they sell their skins, and the flesh, which is very good, serves them, in a great degree, for food at this season. They give it the preference to every other kind of flesh, and consider it as the only one of which a large quantity can be eaten without inconvenience. They make hams of the hind legs, which are very much esteemed. In the autumn and winter, the bears become exceedingly fat, and some of them will weigh as much as four hundred weight. The fat is consumed in the country, where it is used instead of oil. They are hunted with strong dogs, which, without coming into their reach, teize and aggravate them, and at length force them to climb up a tree, where they are shot by the hunters. A fine skin is sold for a piaster and a half, or two piasters. The black bear of North America lives principally upon roots, acorns, and chestnuts. To procure them in a greater quantity, he climbs up into the trees, and, as his weight will not allow of his going far from the trunk, he breaks the branch on which he has observed the most fruit, by grasping it in one of his fore paws. I have seen some of these branches of such a diameter, that the animal must have possessed an extraordinary strength to break them in this manner. In summer, when they are more liable to be in want of food, they will fall upon the pigs, and, sometimes, even upon men.

CHAP. XXX.

Morgantown.—Departure for Charlestown.—Lincolntown.—Chester.—Winesborough.—Columbia.—Appearance of the Country on this Road.—Cultivation, &c.

MORGANTOWN, the chief place of the county of Burke, contains about fifty houses, built of planks, and is almost wholly inhabited by working people. Only one store, kept by a commercial house at Charlestown, is established in this small town, at which all the inhabitants for five-and-twenty miles round buy articles of mercery or haberdashery, brought from England, or give in exchange for them a part of their produce, which consists principally of smoked hams, barrelled butter, tallow, bear's and deer's skins, and also ginseng, which they bring from the mountains.

It is two hundred and eighty-five miles from Morgantown to Charlestown, and there are several roads to it, which are not more than fifteen or twenty miles different from each other. Travellers chuse that on which they expect to find the best supplied plantations. I took that which passes through Lincolntown, Chester, and Columbia. The distance from Morgantown to Lincolntown is forty-five miles. The soil, in the whole of this interval, is very bad, nnd the plantations, situated five or six miles from each other, have but an indifferent appearance. The woods are, in great part, composed of the different species of oaks, and the surface of the land is covered with grass intermingled with plants.

Lincolntown, the chief place of the county of Lincoln, is formed by a groupe of forty houses, surrounded with woods, like all the small towns of the interior. Two or three stores, which carry on the same sort of trade as that at Morgantown, are established here. The merchants who keep them, send the productions of the country to Charlestown for sale, but they often find it more advantageous to purchase their goods at Philadelphia, although it is six hundred miles farther off. Some forward them, by sea, to Carolina, from whence they come to Lincolntown by land. The freight, which is a little higher from England to Charlestown, and the exorbitant profits which the traders of that town endeavour to obtain, appear to be the only reasons for giving the preference to those of Philadelphia.

A newspaper, in large folio, is printed at Lincolntown, which appears once a week. The price of the subscription is two piasters per annum: but, for the conveniency of his country-subscribers, the printer, who is also editor, takes flour, rye, wax, &c. in payment, at the market price. The advertisements inserted for the inhabitants of the country are generally the most certain profit to the printers. The foreign news is obtained from the papers published in the sea-ports. The federal government, whose constant aim is to propagate instruction, and a knowledge of the laws, among the people, allows the editors of the periodical papers, published through the whole extent of the United States, to receive those which they exchange with each other, or which are directed to them, post-free.

The county of Lincoln is peopled, in great part, by Germans, from Pennsylvania. Their plantations are in good order, and their lands well cultivated. Almost all of them have negro slaves, and they appear to be more comfortable than the families of English origin. A much more correct idea may be formed of the industry of some of them, by the state of the plantation, situated on a branch of the river Catabaw, at which I stopped. Of eight hundred acres, of which it is composed, a hundred and forty are cultivated in cotton, maize, wheat, and oats; and they are dunged every year; which is a great degree of perfection in the present state of agriculture in this country. In addition to this management, its owner has built several conveniencies in his yard, which are worked by the same stream of water: they consist of a good corn-mill, a saw-mill, another for separating the seeds from the cotton, a tannery, a tan-mill, a distillery to make peach-brandy, and a small forge, to which his country neighbours come to get their horses shod. Seven or eight negro slaves are sufficient to manage these different concerns, some of which are only in work at certain times of the year. Their wives are employed under the direction of the mistress, in fabricating cotton and linen stuffs for the use of the family.

The total amount of my host's taxes, as well for the land-tax as for the different articles of industry, does not exceed seven piasters annually; while under the presidency of J. Adams, they were as high as fifty piasters: his memory, therefore, is not held in great veneration in the Upper Carolinas, and in the western country, where the political opinion is strongly in favour of the opposition, and no one dare publicly avow himself to be attached to the federalist party.

In all the country which I passed through in this journey, every tanner has a tan-mill, which does not cost him more than ten piasters to erect. The bark is put into a round frame of wood, twelve or fourteen feet in diameter, the sides of which are about fifteen inches in height, and it is crushed by the weight of a wheel, a foot thick, turned by a horse, and fixed like that of a cider-press. In general, an old mill-stone, or a wooden wheel, formed of different pieces, and having, on its circumference, three rows of teeth, also of wood, two inches in length, and twelve or fifteen lines in width, is made use of for this purpose.

It is seventy miles from Lincolntown to Chester Court-house, in the state of South Carolina. In this interval, the lands are light, and inferior in quality to those between Morgantown and Lincolntown;

and, although the mass of the forests is still composed of the different species of oaks, the pines are nevertheless so abundant in them, that, for spaces of several miles, they are not mixed with any other species of tree. There are very few plantations; they do not exceed fifteen or eighteen, and cultivate cotton and maize. Some others are to be seen which have been abandoned by their proprietors, being too unproductive; for the inhabitants of Georgia and the two Carolinas, who do not plant rice, often prefer clearing new spots to keeping their land in a condition to produce a crop annually, by practising a methodical cultivation, as in Europe, and even in New England and Pennsylvania. The considerable extent of this country, compared with its small population, also admits of these changes, which are made after fifteen or twenty successive crops.

Chester contains about thirty wooden houses, among which are two taverns and two stores. In the principal places of the western and southern states, there are neither fairs nor markets. The inhabitants sell the products of their land to the merchants settled in the small towns, or, as is more usual to the southward, send it to the sea-ports in waggons.

From Chester, the country becomes worse and worse in every respect. The traveller is no longer received at the plantations: he is obliged to stop at the taverns, where he is badly served, dirtily lodged, and pays more than in any other part of the United States. The degree of reputation of these taverns is proportionate to the greater or less variety of spirituous liquors which they sell, among which French brandy always holds the first rank, although it is frequently lowered three or four times.

It is fifty miles from Chester to Columbia. Twenty-five miles before reaching this place, the road passes through Winesborough, containing about one hundred and fifty houses. This was one of the first inhabited places in Carolina; and some of the planters of the lower country come here to pass the summer and autumn. The *Pine-barrens* begin fifteen miles nearer to Chester than Winesborough, and from thence to the sea the country is one continued forest of pines.

Columbia, which has been built fifteen or eighteen years, is the seat of government of the state of South Carolina. It stands on a plain, two hundred toises from the river Catabaw. The number of its houses does not exceed two hundred. They are almost all constructed of planks, and painted grey or yellow; and although there are very few of them *raised* more than two stories, in the whole they have a very agreeable appearance. The legislature, which is formed by the assembly of the delegates of the different counties, whose number is proportionate to the population of the counties represented, meets here on the 1st of December, in every year, and all business is discussed in the course of that month. It is then dissolved, and, except at this time, the town derives no particular advantage from being the seat of government of the state.

The inhabitants of the upper country who do not chuse to transport their produce to Charlestown, stop at Columbia, where they are enabled to dispose of it in the stores established in that town, of which there are ten or twelve.

The river Catabaw, which is almost a hundred and twenty-five toises in breadth, is only navigable during the winter. For the rest of the year, its navigation is stopped by the large rocks which obstruct its course. They have, however, been several years employed in forming a channel to facilitate the passage of boats; but the work goes on slowly for want of hands, although the workmen are paid at the rate of a piaster per day.

Columbia is a hundred and twenty miles from Charlestown; in all this space, and particularly beyond Orangeburgh, which consists of about twenty houses, the road lies over a flat country, sandy and arid in summer, though in the autumn and winter it is so covered with water, that, in some places, the horses are up to their mid-legs, for a space of eight or ten miles. Every two or three miles there is a miserable log-house on the road, surrounded by small fields of maize, the weak stems of which seldom rise above five or six feet, and, after the second crop, do not yield more than four or five bushels per acre. But notwithstanding their sterility, these lands are sold for two piasters an acre.

The extreme insalubrity of the climate is clearly demonstrated by the pale and livid countenances of the inhabitants, who, during the months of August, September, and October, are almost all afflicted with tertian fevers: so that, at this period, Georgia and the two Carolinas resemble, in some degree, a vast hospital. Few persons practise medicine, and every one waits for a cure till the first frosts. The negroes are much less liable to intermitting fevers than the whites, and, in the large rice plantations, it is very uncommon for more than a fifth to be disabled from work by this cause.

CHAP. XXXI.

General Observations on the Carolinas and Georgia.—Culture and Productions peculiar to the Upper Part of these States.

THE two Carolinas and Georgia are divided naturally into the upper and lower country: but the upper country embraces the greatest extent. From the termination of the maritime part, the land rises gradually as far as the chain of the Allegany mountains; and, on the whole, exhibits the appearance of an irregular rather than of a mountainous country; intersected by small hills to the bottom of the mountains. The Alleganys give rise to a great number of creeks or small rivers; these, by uniting, form the rivers Pedee, Santee, Savannah, and Alatamaha, which are not navigable more than two hundred and fifty miles above their junction with the ocean. In the upper country the most fertile lands are those on the banks of these creeks: the intermediate spaces are much less so. A very small part of them is cultivated, and those who attempt it are obliged to have recourse to successive clearing, to obtain more abundant crops: consequently, a great number of the inhabitants emigrate to the western country, whither they are attracted by the extreme fertility of the soil, and by the low price of land: for they can obtain land of the first class there, for the same price as that which the second costs in the Upper Carolinas, and, as has been already observed, the latter is scarcely comparable to what is placed in the third, in Kentucky and Cumberland. It may therefore be conceived how important it must be to a man who has only his own labour and that of his children, to cultivate productive lands in preference to those of a bad quality, which are so much the sooner exhausted, because no means are taken to improve them by diligent culture.

In the upper country the mass of the forests is chiefly composed of oaks, walnuts, maples, *plaqueminiers*, and tulip-trees: the chestnuts, which rise to a height of eighty feet, do not begin to appear in these states till within sixty miles of the mountains. It is only in the highest parts that the inhabitants fabricate maple sugar for their use.

The nature of the soil, through all these countries, is adapted to the culture of wheat, rye, and maize, but the latter is the most practised. Good lands yield eighteen or twenty bushels of maize per acre, which is commonly worth half a piaster a bushel. It is in general consumption among the inhabitants, for, except those of German origin, there are few, as has been already observed, who eat wheaten bread. The growth of wheat is very limited, and the small quantity of flour exported from hence to Charlestown and Savannah, is sold there at fifteen per cent. lower than that imported from Philadelphia.

The low price to which tobacco has for some years fallen in Europe, has occasioned the culture of it to be abandoned in these countries. That of the *Green-seed Cotton* has replaced it, very advantageously for the inhabitants, a great number of whom are already enriched by it. The separation of the seeds from the husks which enclose them, a tedious operation, which requires much manual labour, has been lately simplified by a machine, for which the inventor has obtained a patent from the American government. The legislature of South Carolina, have, for three years, paid him a sum of fifty thousand piasters, for permitting all the inhabitants of that state to construct them. This very simple machine, the price of which does not exceed sixty piasters, is worked by a horse or current of water, and cleanses three or four hundred pounds of cotton in a day, while, by the common process, a man cannot pick more than twenty-five or thirty pounds. It is true that this machine has the inconvenience of cutting the wool already too short in this species of cotton, which, for that reason, is of an inferior quality to any other kind met with in commerce; but this is said to be compensated by the saving of time, and, more especially, of manual labour.

It is very probable that the different species of fruit trees which we have in France would succeed very well in the Upper Carolinas. Two hundred miles from the sea, the apple trees are luxuriant, and, in the county of Lincoln, some Germans make cider. But here, as in Tennessee, and in the greatest part of Kentucky, they cultivate the peach alone: the other species of trees, such as pears, apricots, plums, cherries, almonds, figs, mulberries, walnuts, and gooseberries, are only known by name. Those who are possessed of some degree of affluence are desirous of procuring them, but the distance from the sea-ports offers great obstacles to it. The greater part of the inhabitants do not even cultivate leguminous vegetables, and there is not above one in twenty who plants a small patch of cabbages in his maize field.

In the Upper Carolinas, the grass which covers the surface of the soil is more abundant, as the forests are more open. The woods are also in common, and every person permits his cattle, which he recognizes by his mark, to be at liberty in them. Some have in their herds a variety of oxen without horns, but they are not in greater estimation than the common kind. During all my journey I did not see any, which, in strength, could be compared to those bred in our western departments: this no doubt arises from the little care which the owners take of them, and from what these animals suffer in the forests, where, during the summer, they are cruelly tormented by an innumerable multitude of ticks and gnats; and, in winter, they are in want of grass, which is withered by the action of the first frosts. These inconveniencies are more fell, during the summer, in the lower country, owing to the extreme heat of the climate. From these causes it results that the cows give little milk, and are dry in three or four months. In the environs of Philadelphia and New York, where they pay as much attention to them as in France, there are some, on the contrary, as fine, and which give milk as abundantly.

The horses reared in this part of the southern states, are inferior to those of the western states. The sheep are very few, and those of the inhabitants who possess a dozen, are considered as having a large stock.

The commercial dealings of the Upper Carolinas and Georgia are mostly carried on with Charlestown, which is very little farther from them than Wilmington and Savannah. They give it the preference, because commerce is brisker there, and they find a readier sale for their commodities. The articles principally carried there are short cotton, tobacco, smoked hams, salted butter, wax, deer's and bear's skins, and cattle. They take in return large iron articles, tea, coffee, raw sugar, coarse woollen cloths, and some fine linens, but no iron in bars, the upper country abounding in mines of this metal, and those which are worked being sufficient for the wants of the inhabitants. They also bring salt from the sea-ports, for there are no salt works in any part of the Atlantic states. These goods are conveyed in large waggons with four wheels, drawn by four or six horses, which travel twenty or four-and-twenty miles a day, and stop every night in the woods. The price of carriage is about four francs (three shillings and four pence) per quintal, for every hundred miles.

Although the climate of the upper country is infinitely more healthy than that of the lower parts, the intermitting fevers are nevertheless to be dreaded within two hundred or even two hundred and fifty miles of the sea, and it is necessary to go to this distance to pass the summer in security.

Eight-tenths of the inhabitants of these countries are as well provided as those of Tennessee and Kentucky. Like the latter, they live in log-houses, insulated in the woods, which remain open both night and day: the internal economy of their families is the same, and they practise the same modes in their agricultural labours. Nevertheless there are many among them whose moral characters are perhaps not so pure as those of the inhabitants of the west: they are probably spoiled by an intercourse with the Scotch and Irish, who come annually, in great numbers, to settle in this country, and bring with them some of the defects and vices, which are the usual consequences of an extensive population. The majority of these new comers pass into the upper country, where they are bound, for one or two years, to work for the persons who pay the captain of the vessel for their passage.

CHAP. XXXII.

Of the lower Part of the Carolinas and Georgia.—Modes of Culture.—Population.—Arrival at Charleston.

THE low country, in the two Carolinas and Georgia, extends from a hundred and twenty-five to a hundred and fifty miles from the sea-side, growing broader towards the south. The space comprised within this extent is flat and regular, formed of a blackish sand, not very deep, in which there are neither stones nor flints; it is therefore unnecessary to shoe the horses in all this part of the United States. Seven-tenths of the country are covered with pines of the same species, Pinus pa-

lustris, which are so much the taller and less branched, as the soil is drier and lighter. These trees, standing most commonly about fifteen or twenty feet from each other, are not injured by the fire, which, at the commencement of the spring, is also set to the grass and other plants in the woods here, which have been killed by the frost. These pines, which, being but little incumbered with branches, split very even, are preferred to the other trees for making fences to the plantations. Notwithstanding the sterility of the soil in which they grow, they are sometimes intermixed with three species of oak, to wit, *Quercus nigra*, *Quercus Catesbæi*, and *Quercus obtusiloba*. The wood of the two first is only fit to burn, while that of the other is much used, as I have observed before.

The *Pine Barrens* are crossed by small marshes, or swamps, in the middle of which generally runs a brook. These swamps, from ten to forty toises in breadth, are sometimes upwards of a mile long, and communicate with others, more extensive and more humid, bordering on the rivers. They have different degrees of fertility, as is very strongly indicated by the trees which grow on each, exclusively, and are not found in the high country. Thus the chestnut oak, *Quercus prinus palustris*, the *Magnolia grandiflora*, the *Magnolia tripetala*, the *Nyssa biflora*, &c. grow only in the river swamps, the soil of which is of a good quality, and always fresh, humid, and shaded. In some parts of these swamps, which are flooded half the year, where the soil is black and muddy, and rests on a clayey bottom, there are also the acacia-leaved cypress, the *Gleditsia monosperma*, the lyre oak, and a cluster-walnut, the nuts of which are small, and break easily between the fingers. The aquatic oak, the red maple, the *magnolia glauca*, the *Liquidamber styraciflua*, the *Nyssa villosa*, the *Gordonia lasyanthus*, and the *Laurus Caroliniensis*,* on the contrary, cover, almost exclusively, the narrow swamps of the pine-barrens.

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* See the *Flore boreali-americana*, par A. Michaux, chez Levrault, freres, Paris, 1801.

The Spanish beard, *Tillandsia usneoides*, a species of moss of a grey colour, and several feet in length, which grows very plentifully on oaks and other trees, is also a plant peculiar to the low country.

In the districts where there are no pines, the soil is not so arid, it is deeper, and more productive. Here are found white oaks, *Quercus alba*, aquatic oaks, *Quercus aquatica*, chestnut oaks, *Quercus prinus palustris*, and several species of walnuts. All these trees are, here, an indication of the greatest fertility, which is not the case in the western country, as I have already observed.

The best rice plantations are in the great river swamps, which are convenient for being watered at pleasure. The crops are very abundant, and the rice which grows here, when freed from its husk, is larger, more transparent, and sells for a higher price than that produced in less humid lands, where there are neither the means nor the facility of irrigation. The culture of rice, in the southern and maritime parts of the United States, has diminished very much within a few years: it has been, in a great degree, replaced by that of cotton, which yields greater profit to the planters; for they calculate that one good crop of cotton is equivalent to two of rice. Hence it has resulted that a great number of rice fields have been converted into cotton fields, guarding, as much as possible, against the entry of the water.

The soil most proper for the growth of cotton is found in the islands lying on the coast. Those belonging to the state of Georgia produce that which is most esteemed, and known, in commerce, in France, by the name of the *Coton de Georgie, Laine fine*; and in England by that of *Sea Island Cotton*. This variety of cotton has a deep black seed, and very long fine wool. In February 1808, it sold at Charlestown for one-and-twenty pence a pound, while that which had grown in the high country was not worth more than eight pence half-penny, or nine pence. The first is almost wholly exported to England, and the second goes to France: but it is very remarkable, that when, from any cause, both these qualities are imported into our ports, the difference in the price does not exceed twelve or fifteen per cent.

The planters of cotton are particularly apprehensive of the cold, which sets in early, and very frequently makes them lose part of their crops, by freezing half the stems of the plant, many of the capsules of which have not reached the degree of maturity necessary for opening them.

Maize is also cultivated in all the plantations. The best lands yield twelve or fifteen bushels per acre. It is planted, as well as the cotton, at distances of two feet and a half, on parallel ridges, fifteen or eighteen inches in height. This variety of maize has a short round grain, of a white colour. Made into a pottage, it is preferable to that cultivated in the central or western states, or in the Upper Carolinas. The greatest part of that which is gathered, is intended to feed the negroes for nine months in the year. They have about two pounds of it per day, and, after having broken it a little, boil it in water. In the remaining three months of the year they give them sweet potatoes; but never meat. They are better treated in the other parts of the United States, and live nearly like their masters, without having determinate rations. Maize is sold at Charlestown for one piaster a bushel, weighing about fifty-five pounds.

Thus rice, long woolled cotton, sweet potatoes, and the variety of maize which has been mentioned, are the only articles cultivated in the maritime part of the southern states, the temperature of the climate, and the nature of the soil, which is too light and too humid, not being at all favourable to the growth of wheat, and the other sorts of grain.

In all the lower country the labours of the field are performed by negroes; and most of the planters employ them even in those which might be done with the plough. They think that the land is better cultivated, and they also calculate that, in the course of the year, the expense of feeding and keeping a horse would be ten times as much as that of a negro, which does not exceed fifteen or sixteen piastres annually.

I shall abstain from all reflections on this subject, on which the opinion of many people is settled.

The climate of the Lower Carolinas and Georgia is too hot in summer to be favourable to the European fruit trees; and it is too cold, in winter, to agree with those of the West Indies. The fig is the only tree which succeeds well here; but the figs turn sour in a few days after they have acquired their greatest maturity, which is, doubtless, to be attributed to the constant humidity of the climate.

In the environs of Charlestown, and on the islands near the coast, orange trees stand the winter in the open air, and are seldom injured by the cold; but ten miles up the country, they are annually frozen down to the surface of the ground, although these countries are in a more southern latitude than Malta or Tunis. The oranges which are gathered in Carolina are not fit to eat: those which are consumed here come from the island of Saint Anastasia, which is opposite to Saint Augustin, the capital of East Florida: they are sweet, very large, have a thin skin, and are more esteemed than those brought from the West Indies. It is fifty years since the seeds of this species were brought from India, and given to an inhabitant of this island, who has increased them so much as to have made an orchard of them of forty acres. I had an opportunity of seeing this fine plantation when I was in Florida, in 1788.

In the general census of the United States, published in 1800, the population of North Carolina, including the negro slaves, is stated to be 478,000 inhabitants; that of Georgia, 163,000; and that of South Carolina, 346,000. Not having had an opportunity of seeing the particular accounts of the two first states I am unacquainted with the proportion found in them between the whites and the blacks, and the difference between the population of the low and high country; but an idea of it may be formed from the census of South Carolina, in which the numbers are, in the low country, including the city of Charlestown, 28,000 whites and 100,000 negroes; and in the high country 168,000 whites, and 46,000 negroes.

I arrived at Charlestown on the 18th of October, 1802, three months and a half after my departure from Philadelphia, having gone through a space of nearly eighteen hundred miles. I remained in Carolina until the 1st of March 1803, at which time I embarked for France, on board of the same vessel as had brought me to America eighteen months before, and I arrived at Bourdeaux on the fifth Germinal, in the year XI (26th March 1803).

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